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ABSTRACT

The Center for the Study of Evaluation at the University of California, Los Angeles, collaborated with school site personnel in an attempt to build an on-going, comprehensive, school-based information system useful in instructional decision making and general school renewal. Conducted at a suburban senior high school over an 18-month period, the project built onto the CASA (Computerized Accountability for Student Achievement) system already in use at the school. The information system idea interacted with three types of contextual factors: the school's social organization, teachers' thinking and reasoning about information, and leadership and support. While faculty opinion was divided as to the usefulness of a school-based information system (citing irrelevance of building-level data to ongoing classroom teaching and individual diagnostic information needs, as well as possible abuses such as biasing teacher attitudes), teachers' positive reactions seemed to center on the Student-At-A-Glance and Class-At-A-Glance data report forms. Without settings for use beyond the individual teacher in a self-contained classroom and without the principal's commitment, there seemed little likelihood of further development of the system at this school. However, information gathered during this project was used at both the classroom and building levels. (25 references) (DB)

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INFORMATION USE IN SECONDARY SCHOOLS: A CASE STUDY OF THE DEVELOPMENT OF A COMPREHENSIVE INFORMATION SYSTEM

by

Donald W. Dorr-Bremme

► UCLA Center for the Study of Evaluation

in collaboration with:

► University of Colorado

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CENTER FOR THE STUDY OF EVALUATION
Graduate School of Education
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ABSTRACT

CSE Staff and School Site Personnel collaborated in an attempt to build an on-going, comprehensive, school-based information system useful in instructional decision making and general school renewal. The project was conducted at a suburban senior high school over an 18-month period. The information-system idea interacted with three types of contextual factors: the school's social organization, teachers' thinking and reasoning about information, and leadership and support. While faculty opinion was divided as to the usefulness of a school-based information system (citing irrelevance of building-level data to ongoing classroom teaching and individual diagnostic information needs, as well as possible abuses such as biasing teacher attitudes), teachers' positive reactions seemed to center on the Student-At-A-Glance and Class-At-A-Glance data report forms. Without settings for use beyond the individual teacher in a self-contained classroom and without the principal's commitment, there seemed little likelihood of further development of the system at this school. However, information gathered during the reality test was used at both the classroom and building levels.

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INTRODUCTION

This paper describes, analyzes, and draws lessons from one recent attempt to build an on-going, comprehensive, school-based information system useful in instructional decision making and general school renewal. The project was conducted at a suburban, senior high school over a period of about eighteen months from December, 1983 through June, 1985. It was the collaborative effort of staff at UCLA's Center for the Study of Evaluation and teachers, administrators, and others at the school site. Personnel in the central administrative and data processing offices of the school's district were also involved.

The project was undertaken as a reality test. Its purpose was to examine, in an actual secondary-school setting, the feasibility of certain concepts and procedures included in earlier writings by the UCLA project directors. They have glossed these concepts and methods with the terms systemic evaluation (Burstein, 1983, 1984a-c; Sirotnik, Burstein, & Thomas, 1983) and contextual appraisal (Sirotnik, 1984a; Sirotnik & Oakes, 1981a, b). Summarizing some essential features encompassed by these notions, Sirotnik and Burstein (1985, p.1) have explained:

> Regardless of the terminology, the idea is built around the use of comprehensive information -- data including but not limited to achievement outcomes -- to inform school improvement efforts at all organizational levels of the educational enterprise. Perhaps even more central is the idea that the use of comprehensive information systems is not something that can be packaged and forced upon school people; rather they must be appropriately and non-trivially involved throughout the processes of development and implementation.

Other elements embodied in earlier descriptions of systemic evaluation or contextual appraisal for schools will be outlined below. These two ideas, however, were the fundamental, guiding principles of the reality test dicussed here.

Throughout the project's eighteen months on site, the author of this report acted as a participant observer. He sat in on nearly every event formally connected with the project, recording conversation verbatim or near-verbatim and documenting action "play by play" in narrative field notes. During other moments on site, he set down potentially relevant talk and behavior in the same way. He also collected and maintained a file of project artifacts: drafts of project materials, meeting agendas, and all letters, memos and other documents that seemed germane to the reality test. Finally, toward the end of project activities at the high school, he conducted open-ended interviews with 23 school staff members (including 18 classroom teachers) to elicit their reactions to project efforts and assisted in gathering questionnaire responses to the project from 49 more of the school's 83 classroom teachers. Collectively, these data constitute the basis of the description and analysis that follow.

Of this report's three major parts, the first two are largely descriptive. Part I, The Reality Test, provides general background on what was done, where and when. After briefly elaborating the concept of systemic evaluation that informed the project, it gives a thumbnail sketch of the school and its setting then goes on to chronicle major project activities.

Part II, The Results, recounts the activities and attitudes that in the end the project apparently engendered. In particular, it details what high school staff members thought about and did with the information forms the project produced. It also describes the status of project components as UCLA participants turned them over to the school personnel in June, 1985.

Part III, Analysis and Lessons, turns from the more or less literal description of what happened to an interpretive account of how it happened. That is, it identifies some key factors that seem to have influenced the reality test and its results. These are dissected and discussed under three general headings: (1) the social organization of the school; (2) teachers' thinking and reasoning about information; and (3) leadership and support.

PART I

THE REALITY TEST

Conceptual Foundations and Goals of the Reality Test

As noted above, the conceptual foundations of the information-system "reality test" lay in the ideology and methodology that has been called systemic evaluation. Even though the systemic evaluation model _per se_ was never on trial (only some of its constitutive ideas and methods were actually tested), the model as a whole did serve as an important reference point throughout the project. It served as a reference point in delimiting project goals. As a reference point for UCLA staff, it came to influence the processes and decisions through which the reality test evolved. And in the end, the model as a whole can appropriately serve -- and has served here and elsewhere -- as a useful reference point for reflecting upon what happened at the high school site and what did not. This section, therefore presents a brief overview of the systemic evaluation model; then, with that as background, it outlines the specific goals of the reality test.

The Systemic Evaluation Model

A conceptual paper by Sirotnik, Burstein, and Thomas (1983) discusses many of the key principles of systemic evaluation. Among them are the following:

1. Outcome indices have limited value, beyond their immediate descriptive signal, for helping direct an agenda for school improvement.
2. A necessary requisite is relevant information on the circumstances, activities and sentiments associated with schooling process.
3. The criteria of relevance are based upon the perceived needs of the significant "actors" in the setting (e.g., administrators, teachers, students, parents) and the inherent value systems through which these perceptions are filtered.

4. Information gathering as knowledge production has several crucial and interrelated features:

    a. It is operationalized with a multi-method approach to data collection (e.g., survey questionnaire, interview, anecdotal and structured observation, documentation and archival records).

    b. It is conceptualized and analyzed from a multi-level (e.g., individual, class, school, district) perspective.

    c. It embraces multi-inquiry paradigms (e.g., empirical analytical, naturalistic/interpretive and critical-dialectic).

5. Information as knowledge is not an end in itself but is, instead, a catalyst for evaluative discourse and action; systemic evaluation must, therefore, be legitimized as a natural and ongoing part of the daily work life of those for whom the knowledge is to be relevant.

Underlying these principles is a view of the school as a cultural/ecological system. Renewal of that system comes about ideally, the systemic evaluation model suggests, through:

> a process by which the circumstances, activities, and meanings [of the school as system] come to be understood and acted upon by people to whom it is relevant... [the renewal process] is people actively and continuously engaged in the systematic and rigorous deliberation over any and all information seen to be potentially relevant to school improvement (Sirotnik, Burstein, & Thomas, 1983, p. 35).

As all the foregoing should indicate, the model or conceptualization is not a blueprint or recipe for what to do, but a set of principles that can guide local developmental efforts.

Elaborating on this point and emphasizing that information systems cannot productively be "packaged and forced on school people," Sirotnik and Burstein (1985, p.1) have gone on to state:

> Our ideal view, then, of school-based information systems sees such systems in the context of a more general commitment to critical inquiry (Sirotnik & Oakes, 1985) at the school level -- a commitment that provides administrators and staff with significant time and resources for both questioning what they do and collecting data that can help inform decisions as to how they might go about doing it better... The process of dialogue, clarifying values and human interests, making and acting upon decisions, and reevaluating these actions, therefore, becomes as important as the empirical data bases required to inform the process.

This brief summary of the systemic evaluation conceptualization or model does injustice to the richness of thought and to the diversity of philosophic and empirical sources upon which it was built. It does, however, accurately capture its most fundamental principles and thus serves as useful background for explaining both the goals of the reality test and (further on) the results of that effort.

The Goals of the Reality Test

As the foregoing summary indicates, systemic evaluation consists of two major components at the school level: (1) a continuing process -- dialogue, reflection, and decision making in the context of an organizational structure that supports critical inquiry; and, (2) a comprehensive, multi-method, multi-level information system, based on the perceived needs of school personnel, to inform that process. It was the second of these two components that the project set out to reality test in the setting of a suburban senior high school.

UCLA project directors have explained their decision to focus on the information-system side of the systemic evaluation concept in the following way:

> Our choice to "decontextualize" conceptually this phase of the study was deliberate on two accounts: (1) resources and time did not permit working at a school site with staff willing to engage in long-term school renewal activities and (2) the reality is such that many schools and districts are already involved with information systems in less than desirable staff planning and development configurations. We decided, therefore, to reality test the information side of the systemic evaluation idea in the context of a typical secondary school setting, with an information system already in place, but with little teacher awareness of how and why it might be utilized (Sirotnik & Burstein, 1985, p. 5).

More generally, the choice to proceed in a high school site "was in response to both national and local concerns about secondary school reform" (Sirotnik & Burstein, 1985, p. 3).

With these decisions, the general goal of the project became to identify and examine the kinds of issues that arise when a school with a good deal of computerized information already available, working with outside help, sets out to establish a comprehensive information system. More specifically, the project sought to explore two broad types of issues. One type can be called technical; the other social.

Technical issues included the problems, concerns and alternative solution strategies that arose in generating comprehensive, multi-level data; in integrating new and extant data across computer files; and in displaying selected data quickly and conveniently to meet the voiced needs of different user groups at the high school site. (This paper only mentions one or two of these issues in passing. For details see Burstein, 1984a, 1985; Ender, 1984; Sirotnik and Burstein, 1984, pp.30ff.)

Social issues explored through the reality test are suggested by the following questions (cf., Sirotnik and Burstein, 1985, p. 5):

- How do educators in a high school setting think and reason about information for routine instructional decision making?
- What kinds of information do they say that they want and for what purposes do they say that they want it?
- In what format and under what conditions do they want to have particular kinds of information?
- When desired information is delivered to educators under the conditions and in the formats that they specify, how and why are various pieces of information used and not used?
- What issues of privacy, confidentiality, etc., arise in the gathering, filing, and delivery of the kinds of information that educators want?
- What status do the information-system development effort and the information system itself achieve among the many routine tasks and special projects that claim the time of the school people?
- What belief systems, social organizational, and other contextual factors impinge on any or all of the above, and how do they do so?

This report addresses these and similar social or human factors questions as they emerged throughout the eighteen-month reality test. (Background on social issues that began to emerge in the early stages of the project appears in Burstein and Sirotnik, 1984; Dorr-Bremme, 1984; Sirotnik, 1984; and Sirotnik and Burstein, 1984.)

By identifying, examining, and beginning to work through these kinds of technical and social issues at one high school site, the UCLA staff expected to gain understandings that could help other schools and districts more smoothly and efficiently to develop comprehensive information systems of their own.

The Setting of the Reality Test

Toward the goals outlined above, UCLA staff negotiated a working agreement to reality test the concept of comprehensive, school-based information systems at King High School in the Valley Unified School District.[1] Located in a steadily growing suburban community on the fringe of metropolitan Los Angeles, the Valley Unified School District serves an enrollment of nearly 20,000 students from diverse cultural and soioeconomic backgrounds. Its 19 elementary schools (grades K-6) feed into four junior highs (grades 7-9), and finally into two high schools (grades 10-12).

One of the latter, King, has a student body of some 2,000. Approximately 85 percent of its students are "Anglo"; the other 15 percent includes Hispanics, Asians, and Blacks. School authorities estimate that about 8 to 10 percent of King's graduating seniors go on to attend four-year colleges or universities. Another 20-30 percent, they say, enroll in a local, two-year community college.

The school prides itself on offering a full range of advanced placement courses, a rich curriculum, successful athletic programs, and a wide range of other extracurricular activities. Educators at King and in the District, however, express some concern that King graduates may not be pursuing post-secondary educational and career opportunities concomitant with the quality of school programs.

While in most ways neither King nor the Valley Unified School District are unusual, some special information resources and educational programs made them propitious settings for the trial of a comprehensive information system.

One distinctive feature of the resources at King High School is CASA (Computerized Accountability for Student Achievement). A computer-based student information management system, CASA gives counseling staff and assistant principals instantaneous access to a wealth of information stored on each student. Through this system, counseling staff and administrators can access such student-level information as standardized test scores for multiple years (including information prior to high school entry); proficiency testing information (from the District's Computer Managed Instructional Program, which monitors student progress in grades K-10 through the use of CRT's based on District continuum); curriculum and performance information including courses taken, credits, grades and class rank; background information including parental occupations, family size, census tract location of residence, and ethnicity; current school status information including eligibility for special programs (Gifted and Talented, bilingual, special education), special school activities (athletics, school paper, etc.), complete attendence history and referrals to various school services (psychologist, health office, counselor and guidance office, principal, etc.).

The CASA system was developed with Title IV-C funds. The system is currently being augmented through state school improvement funds targeted to the development of a computer-managed Career Magnet School (CMS) program. CMS seeks to align student's career interests with specific courses in the school. (Careers Magnet schools are first broken down into career paths such as computer technology and then further into programs such as computer technician, operator, programmer, or designer). The skill-to-course and skill-to-career matches are being computerized so that counseling staff can develop courses of study for students choosing particular careers and monitor their progress at obtaining prerequisite skills.

CMS is one of two efforts recently instituted at King High School that are directed at career and academic decision making. The other, the Learning Resources Center (LRC), offers students and teachers academic resources (materials, assistance) for remedial and advanced work. These two programs appear to be guided by a general concern that students do not have the necessary information and skills to attain the post-secondary education and careers they might want. The implicit assumption is that by providing sudents with more information about career opportunities and their necessary prerequisites (CMS) on the one hand, and resources for remediating or enhancing their academic performance (LRC), on the other, that students will make better decisions about how to benefit from their high school experience and be better prepared for their future.

Thus, King High School in the Valley Unified School District presented itself, from several points of view, as an appropriate environment in which to test the comprehensive-information-system idea. Through CASA the school had access to a wealth of potentially relevant information and to a computer system for delivering information to some King personnel. At the same time, there was ample evidence that few King classroom teachers knew of CASA's existence. Fewer still had ever attempted to use it, in part because it was intended primarily to serve central office staff. (See Dorr-Bremme, 1984, pp. 10-18, for documentation and details.) Programs designed to accommodate students' diversity and to prepare them for post-graduation pursuits (CMS and LRC) suggested naturally occurring opportunities for information use. So, too, did staff members' concern with problems such as high absenteeism and drop-out rates (cf., Sirotnik and Burstein, 1985, p. 3). Finally, there were a few key figures at King who exhibited keen interest in the idea of information for institutional decision making.

Aside from the promising CASA technology, however, King High School and its district provided a typical suburban setting. There was reason to believe, therefore, that the types of issues, concerns, and enthusiasms which surfaced during the reality test at King would be broadly germane to circumstances in many other secondary schools and their districts.

The Reality Test In Overview:
A Chronicle of Project Activities

Participants

Central to the reality test throughout its eighteen, on-site months were the activities and decisions of the joint UCLA-King High School "Work Group." The membership of that group is listed below:

King High School

The Principal
An Assistant Principal (and coordinator of special projects)
A counselor (and coordinator of the school improvement program)
A math teacher (and dept. chair)
A foreign language teacher
A social studies teacher
A teacher of science and health
An English teacher

A physical education teacher
An English teacher
A special education teacher
A teacher of art and English

UCLA

Leigh Burstein
(Project Co-director)
Ken Sirotnik
(Project Co-director)
Don Dorr-Bremme
(Participant-observor)

The four King faculty members listed below the line joined the Work Group in mid-November, 1984, when the other members decided the time was ripe to increase teacher involvement.

The District's willingness to provide release time for teachers to attend Work Group and other project meetings consistently constrained the number of teachers who could participate and the frequency with which they could meet. Nevertheless, school administrators and UCLA staff generally agreed that a smaller, rather than a larger, group was best in the project's early stages. The feeling was that a larger number of participants would make discussion and decision making more cumbersome and time-consuming (cf., Sirotnik and Burstein, 1985, p. 6).

Others occasionally joined in the collaborative activity of the regular Work Group members. During two or three meetings, for instance, research assistants and/or a computer specialist from UCLA were present. An administrative assistant from the

King High School office sat in on the early meetings, sharing the experiences she had gained in processing teachers' requests for information from the District's files. A second assistant principal from the high school dropped in for several minutes at one or two Work Group sessions. Routinely, however, it was the cast of characters listed above who did the work and made the decisions that constituted the reality test. Other important players were the Valley Unified School District's Assistant Superintendent for Instructional and Support Services and members of the District's data processing unit. The former acted as the District administration's liaison with the project. The latter provided critical technical assistance to the school-based effort.

A Chronicle of Reality-Test Activities

Focusing on the actions and decisions of the joint UCLA-King High School Work Group, this chronicle recounts, step by step, the principal events of the comprehensive-information-system reality test. A closer look at the context in which these events occurred, and an analytic-interpretive look at the thought processes and interactional dynamics that characterized them, is presented in Part III. This chronological narrative is intended only to outline project processes and make the discussion of results in Part II more understandable.

In retrospect, the reality test appears to have evolved naturally through four general phases. Members of the Work Group never noticed these at the time. Their activities followed one from another in a logical flow, with only the very general goals established by UCLA staff as a guide.[2] Nevertheless, as the emphasis of the Work Group's activities changed with time, its work shaped itself into four stages or phases; and these provide a useful way for thinking about the reality test.

Phase 1 (February, 1984 through May, 1984) centered on identifying, locating and gathering data to meet King staff members' professed information needs.

Phase 2 (June, 1984 through October, 1984) concentrated upon selecting the most relevant information from the data base and developing concise, appealing ways of displaying it for different user groups and purposes. Three prototype information forms were developed.

Phase 3 (November, 1984 to February, 1985) focused upon preparations for a schoolwide trial of the information forms created in Phase 2.

Phase 4 (February, 1985 to June, 1985) revolved around the schoolwide trial, assessing its results, and revising the data base and information forms in light of those results.

This overview of the project's phases should provide a framework for following the chronology of events below.

Phase 1: Identifying, Locating, and Gathering Data to Meet Staff Members' Needs

Before the Work Group convened its first session, the UCLA project directors had had several discussions with administrators at King High and in the Valley Unified School District. These served to lay a foundation for the project by clarifying the interests, commitments, and responsibilities of the school, the District, and the UCLA project team. In addition, District data processing (DP) personnel had briefed UCLA staff and King's Principal and Assistant Principal on the information files routinely maintained in Valley Unified's Burrough's B6800 mainframe computer. DP personnel had also outlined the organization of and linkages among those files, as well as the general capabilities of the District's computer hardware and software.

With these initial steps accomplished, the first meeting of the Work Group took place on Febrary 22, 1984. Most of the session was a relatively unstructured, spontaneous discussion of teachers' information needs. Much of the talk revolved around teachers' frustration with students' placement: they felt students often lacked appropriate skills and prerequisite courses for the classes to which they were assigned. Thus, they wanted District computers to "red flag" or "kick out" unusual cases for further consideration during student course scheduling. They also wanted information that would allow them to "screen" the students assigned to them. Interest was expressed in obtaining data on students' "reading level," past classes and performance in them, writing ability, and ability "to think abstractly." One teacher introduced the idea that teachers should receive information in a simple, concise from, "simply one sheet per class." Others concurred. When UCLA participants raised the issue of collecting "new data," two Work Group faculty members expressed interest in knowing (as one put it) "from students' point of view, what kinds of methods of instruction do they find work best for them." Finally, it bacame apparent in this first meeting that teachers had little or no idea what reports on students the District could already make available to them. (See Dorr-Bremme, 1984, pp. 8-10 for details.)

As this initial Work Group meeting ended, one UCLA participant asked teachers to discuss the following issues with their department colleagues in preparation for the next session: "first, the kinds of things you need for your classes, your departments; and second, the kinds of things you'd want to collect on an on-going basis" for longitudinal monitoring of the health of the school.

The second Work Group meeting two weeks later (February 29, 1984) evolved as teachers reported on their discussions of these issues with faculty colleagues. The focal point of this discussion was the Foreign Language Teacher's report, reproduced here as Exhibit #1. Other teachers, arriving with less formal and comprehensive reports, simply added to or commented upon the Foreign Language Teacher's suggestions. Most supported the idea of a one-page-per-class report that would have most of the information displayed in Exhibit #1. Their reasoning was that such information would give them a "rough idea" of "what the class is like" and "how well a kid is doing." This would be useful at the beginning of a class; "you can modify it once you start working with them," one teacher explained.

Based upon the flow of teachers' comments, a UCLA participant noted that "the ARF is holding up pretty well" and produced a copy of this standard District report, more formally know as an Activities Referral Form. Much of the information Work Group members had been saying that they wanted was, indeed,

Exhibit # 1

Spanish Teacher

I. Suggestions for items to be printed on one sheet of information, to be distributed to teachers one time per semester: (one sheet per class)

1. Student name
2. Student address
3. Student phone number (home)
4. Student I.D. number
5. CMS/counsellor designation/grade level
6. G.P.A.
7. College prep/non-college prep designation
8. Parent or guardian's name
9. Parent or guardian's business phone number
10. Lunch pass/smoking permit designation
11. Student currently working?

II. Foreign Language Departmental Agenda of information desired: (In addistion to the above general infromation)

1. Ethnic background
2. Ethnic attitudes and/or biases
3. Why taking foreign language
4. Subject area preferences
5. CTBS scores - English/Reading/Language arts
6. Student Hobbies/leisure time activities
7. Home environment (both parents, single parent, step-parents, number of siblings etc.)
8. Student perceptions of effective teaching methods as pertaining to foreign language

available on this form. Nevertheless, teachers commented that the form's format was "too dense" and that "it has to be in English; numbers won't work." None of those present had seen, much less used, the ARF (see Exibit #2). As one teacher said, "All this information is in the building, but we don't know how to find it."

Toward the end of this second, all-day meeting of the Work Group, UCLA staff distributed several teacher and student attitude surveys developed in the context of various educational research projects.[3] Looking toward similar surveys as part of the reality test, they asked teachers to sort through these and select items or item sets that they would want to include on questionnaires designed for King High School students and faculty.

During March, King Work Group members completed this task and sent annotated copies of the surveys to UCLA. There, rough drafts of teacher and student surveys were assembled using the items recommended by the high school participants.

The third Work Group meeting (April 3, 1984) was devoted exclusively to editing the rough-draft student questionnaire based on teachers' item choices. The group's goal was to arrive at an instrument that met three criteria: (1) it could be completed by students within one forty-five minute class period; (2) it could be answered on the machine-scorable forms routinely used in District testing, (limit: 200 responses); (3) it would yield information on student attitudes which seemed to meet the needs of teachers as articulated by Work Group faculty members. With considerable give and take during the meeting's

Exhibit #2
Activities Referral Form (ARF)

```
LNARF 0514R7  SCH:33 GRADE:11 SP:    EC:E2 ED: 9/12/83 DOB:11/18/66 SEX:G TCH:
NAME:                          PO BOX:     EMRG1:                PH:    -     -
ADDR:                            #    -    EMRG2:B     Y         PH:805-527-
CITY:               ZIP:93065 DOCTR:TRIMBLE-CULV CT PH:213-839-4381 RG:  /   /
PHONE:              BPL:CULVER CITY,CAL      LSCH:ARCANE ELEM. S V             <
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G.P.A.:3.06  RANK: 109 OF  683  CTBS % MATH:66 READ:44 LANG:51 SAT Q      V
A.F.D.C.:NO  HANDICAP:                         G.A.T.E.:NO  BILING:NO  SP ED:NO
ID CARD:NO   SCH RULES:NO  SMOKE PERM:NO  AUTO PERM:NO  OFF CAMP:NO  YR BOOK:YES
WORK EXP:NO  FREE PER:               LETTER SENT:                     CMS  6
VISITS: C.G.C.:    EUREKA:    LIBRARY:     HEALTH OFF:    PRINCIPAL:    PSYC:
A.S.B.:YES ATHLETICS:NO  OTHER ACTIVITY:NO  GROUPS:
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three hours, such a questionnaire was shaped from the much longer draft version.

For several reasons, no work was done on the draft teacher survey during this meeting. King Work Group participants seemed less interested in eliciting the views of teachers than in discovering those of students. There was concern about whether teachers would respond positively to a questionnaire. (A year or so earlier, the Principal had surveyed teachers, but little had been done with the results. Work Group teachers felt their colleagues might resent taking time to fill out another survey under these circumstances.) Furthermore, the Principal was unable to attend this Work Group session, and it seemed advisable to discuss a teacher survey with him. Thus, the student questionnaire took priority. As the meeting drew to a close, copies of the draft teacher questionnaire were distributed, and King Work Group members were asked to winnow down the number of items it contained and to suggest changes as seemed appropriate.

The weeks of April and May that followed this meeting were given over to preparations for the student survey. UCLA staff updated District administrators on progress. Some issues regarding the privacy and confidentiality of survey information were quickly resolved. UCLA staff made some final refinements in the questionnaire; it was approved by King High's Principal and duplicated at the District office. The District's data processing units printed King students' identification numbers on the answer forms. (This was to allow integration of survey data with other student information in the District's files.) In a fourth, brief Work Group meeting on May 17th, group members worked out the final plans for survey administration.

Following these plans, UCLA staff spent the entire day before the survey was to be administered, meeting with King classroom teachers in small groups during their free periods. Period by period, the UCLA representatives distributed class sets of answer sheets and student questionnaires, then went on to elaborate administration procedures. In so doing, they gave ample time to explaining the overall purposes of the reality test and its goal of serving teachers at King High School and elsewhere. They also opened the floor in each small-group meeting for teachers' questions and reactions.

This was the first opportunity for the faculty as a whole to participate in the reality-test process, and the points of view they expressed were diverse. Some of the most vocal teachers were negative; others expressed cautious interest; still others submitted constructive suggestions. (For details on the interaction during these sessions, refer to Dorr-Bremme, 1984, pp. 31ff.) In any case, all indicated that they would oversee proper administration of the survey.

As scheduled and without difficulties, the student questionnaire was administered to all King high School students in their third period classes on May 24, 1984. (See Appendix A for a copy of the instrument. For a detailed discussion of its underlying rationale and content structure, refer to Burstein and Sirotnik, 1984.) In all, nearly 1500 students, about 87% of the King student body, completed some part of the questionnaire.

Non-response rates to particular items were low: no greater than one percent in the first 120 items; no larger than 20% for items near the survey's end. Analyses of students' answers suggested that they took the survey task seriously. UCLA staff considered the administration a success and judged the data useful.

With the successful completion of the student survey, the emphasis of the project shifted; another phase of activity began.

Phase 2: Selecting Information, Data Analyses, and Presentation Formats for Different Purposes

During previous meetings, the King High members of the Work Group had expressed interest in a wide range of information. No consensus had been reached, however, about exactly which data they wanted, how they wanted it analyzed and aggregated, or how they wanted it displayed. (Teachers had only spoken of a one page sheet with student-by-student information for each of their classes.) Resolving these issues became the central task of the Work Group during the second phase of the reality test, which lasted from June through October of 1984.

As a start on this work, UCLA tabulated the students' responses to the survey and added them to the actual questionnaire. (See Appendix A. The numbers next to each response choice show the percent of students who chose that response. Underlining highlights the most frequent choices.) This simple report of survey results became one catalyst for activity during the next two Work Group meetings. Held on June 18 and 19, 1984, these day-long sessions established the basic parameters for the three information forms which were later distributed to the entire King High School faculty.

The first session began with a general review of survey results. Teachers commented on the responses that struck them as interesting: "I thought most of them were living with one parent!" "The kids see the quality of teachers and people who run the school as a minor problem. That's good news." "The kids seem to feel pretty positive about themselves, which is great. Sometimes they seem like chronic depressives."

After a half-hour of such free-floating commentary, one of the UCLA project directors passed out several sheets which used actual survey data to illustrate different ways of portraying information. In an accompanying talk, he explained that "we can think about data at the individual level... the class level, averages and distributions, and at the departmental or school level, too." He reminded the group that "not all the important data is in the survey. At the class level, for example, you might want to consider whether it's class size, college prep track, or what have you that's making a difference..." Then, he walked the group through the different report formats on the handout. These contrasted "the usual kind of table you see in a technical report" with various other displays, such as histograms, which the UCLA staff had guessed teachers might find more concise and appealing. In addition to demonstrating visual formats, the examples on the handout illustrated how data could be combined and analyzed, e.g., in simple cross-tabulations.

This introductory talk became, along with the report of survey results, another important catalyst for the Work Group's subsequent activity. Once it was concluded, UCLA staff divided participants into two groups, both of which included UCLA and King High staff. The groups were charged with selecting the information they felt were most relevant at three levels: the individual level (student by student), the class level (composite or aggregate data for class groups), and the school level.

During the remainder of this June 18 meeting, the Work Group debated alternative choices in the two subgroups chaired by UCLA project directors. In general, teachers found it easiest (as one teacher formulated it) "to work at the individual level: to think about how it might be useful in planning at that level, to think about how it might be formatted. Primarily, I'm thinking in terms of one sheet per class." Another concurred, adding that in the case of most teachers, "anything more than one page would go in the trash." With suggestions and encouragement by UCLA staff, however, teachers outlined some data they believed would be useful to have for class groups. And when it came to discussing school level aggregations, the Principal took the lead in specifying relevant information.

The next day's session (June 19) was devoted to finalizing the choices made the previous day. The concept of three report forms was ratified as the meeting opened.

One form was envisioned as a kind of elaborated class roster -- a student by student form that would include such data as: student's grade level, Career Magnet School affiliation,[4] standardized test scores, grade point average, absences, plus seven columns of survey data ranging from post-high-school aspirations to an aggregate indicator of "academic self-concept."

Both of the previous day's small groups also expressed interest in information that would give them insights into how students' spent their out-of-school hours, e.g., number of hours spent on jobs, extra-curricular participation, etc. There was a great deal of agreement among King Work group members regarding what should be included on this one-page, student-level form. Debate centered on only two or three survey items: e.g., survey item #63, "I don't have enough time to do my homework" (eliminated on grounds "it isn't worth the space"); student's sex ("we'll know that by the time we look at this [data sheet]"), etcetera.

When discussion turned to the "class-level profile," there was more disagreement about what to include. The main point of debate was whether to include mostly different kinds of information than on the student-level form or, on the other hand, to devote much of the class-level form to aggregates of the individual data on the student-by-student sheet.

Teachers agreed that the class-level information, like the student-by-student data, should go on one sheet. UCLA staff were skeptical about whether this could be done given the wide range of information teachers wanted. In this context, teachers decided to forego the class composites of data that would already appear student by student. Instead, they chose to have the class profile: (1) graph students' grouping preferences -- work alone, in homogeneous small groups, etc. (survey items #106-109); (2) show students' learning activity preferences -- listen to the teacher, do projects, etc. (survey items #123-138); (3) indicate whether they liked the class subject (survey items #92-100); and

(4) cover several other, individual questionnaire items. UCLA staff agreed to try to present this data in a concise format, if not in one page.

Discussion of the school-level report was brief. Teachers offered some suggestions and comments; one UCLA participant urged that the school report "tie to themes that are salient for the school." Ultimately, the Principal identified three themes he believed "should be dealt with in a whole-school way":

> First, 48 percent of the students say they expect to go to a four-year college, but only 10 percent are doing that...
>
> Second, at least 40 percent said they are comfortable about choosing a career goal now. This has implications for our Career Magnet program, it might reinforce directions we're headed now.
>
> Third, the purpose of the school: what they see the school as emphasizing and what they want, the personal *versus* the academic [survey items #91 and 92].

With a bit more discussion, the meeting adjourned.

Taken together, these two sessions set the agenda for the UCLA staff for the summer of 1984. As the King staff went off for the summer, UCLA participants began to experiment with different ways of formatting the information that the teachers wanted. This process has recently been described in some detail by Sirotnik and Burstein (1985, pp. 14-34) and need not be detailed here. Suffice it to say that it resulted in several alternative formats for the student-level report and the class-level report, plus some graphs that could become part of a school-level report.

Three other project activities occupied the summer months.

UCLA staff had earlier collected Work Group teachers' comments and suggestions on the draft teacher survey originally produced in March. Now, they synthesized these into a second, revised draft. Second, UCLA staff worked with King High administrators and counselors to assure that incoming sophomores received the student survey during their registration and orientation meetings at the end of August. (Some 79% of the new tenth graders completed a shorter version of the questionnaire, edited to eliminate questions that presumed attendance at King.) And finally, UCLA and King's Principal worked to secure the District's continuing support of the project. Specifically, it had seemed that the Assistant Superintendent had committed himself to reimbursing teachers for attendance at two Work Group meetings in the early days of September, before school began. As September approached, this commitment seemed in doubt.

Uncertainty regarding the level of District support continued into October, making project planning for the 1984-85 school year difficult. (See Dorr-Bremme, 1984, pp. 40-43, for an account of interaction between UCLA and Valley Unified administrators during this period.) In the midst of this uncertainty, however, reality test activities went ahead.

District reimbursement for two, day-long meetings in September never materialized, but the Work Group did gather for three hours just before the opening of school on September 6, 1984. Several important decisions were made during this session. First, with complete consensus, the teachers expressed their preferences for one of several prototype student-level report formats and one of several class-level displays. (These had come to be called, respectively, "Students-At-A-Glance" and "Class-At-A-Glance", each is shown in Appendix B.) A few minor revisions in the two forms were suggested, but the response to both prototypes was enthusiastic.

Some graphs which later became part of a school-level composite ("School-At-A-Glance," Appendix B) were also well received, and discussion of school-level data gave rise to considering how to share the survey findings and these prototypes with the King faculty as a whole. The idea of simply distributing the questionnaire with added results was quickly rejected on the grounds that (as one teacher expressed it) "we need personal contact. That's the only way we're going to get people interested and involved." Ultimately, the Work Group decided on a faculty meeting, to be held for two-and-a-half hours before school on a "minimum day," as the vehicle for approaching the entire staff. The goals of the meeting would be "to meet our commitment to give them feedback," "to stimulate interest, curiosity, and dialogue," "to explain the project," "to let people know we'd like them to join [the Work Group]," and "to get feedback on the forms." This decision was reached amidst a wide-ranging discussion of the project's future, its goals, and the feasibility of expecting on-going school renewal at King High School. That King staff would soon need to assume greater responsibility for evolving the information system was generally acknowledged.

As the meeting drew to a close, a general agenda for the anticipated faculty meeting was sketched out. The history of the

UCLA-King collaboration, the survey and its history, would be covered first. Then, the prototype Students-At-A-Glance and Class-At-A-Glance would be distributed for reactions. A school-level report, organized around the Principal's three themes would be given out, and the faculty would then be divided into small groups to react to the school wide themes and the forms in general. Teachers in the Work Group would play a main role in the presentation, and other faculty members would be invited to join an expanded group.

Just after this Work Group session, UCLA staff met with King's Principal to plan the next steps for negotiating continued District support. Clearly, plans to expand the Work Group and to distribute information to all teachers for their classes would require District resources: release time for Work Group teachers, data processing time to produce the forms, etc.

School and District administrators, together with UCLA personnel, met to discuss such matters on September 27. District people liked the "At-A-Glance" reports and approved the general direction of the reality test, but the Assistant Superintendent added "we don't have a lot of bucks" to support it. Eventually, the District did provide some project support. The number of Work Group meetings envisioned by UCLA project directors, however, had to be curtailed as did occasions for involving the whole King High School faculty.

On October 5, the Work Group finalized an agenda for the project's presentation to the faculty, now set for November 7. Later that day, UCLA project directors met with the director of

Valley Unified's data processing unit and provided him with a variable description and location format for generating actual Student- and Class-At-A-Glance reports for every teacher in the school. District permission had been granted for producing them; the second week of classes in the second semester (February, 1985) was set as the target for their distribution. The reports would then incorporate students' grades, absences, and other cumulative data through the first half of the school year.

The remainder of October was spent in tabulating and integrating results of the incoming tenth-grade survey with earlier questionnaire results, building experimental graphs into the School-At-A-Glance report, and making minor revisions in the other two at-a-glance prototypes in response to Work Group suggestions. These tasks accomplished, the second phase of the reality test gave way to the third.

Phase 3: Preparing for a Schoolwide Trial

Beginning with the Novermber 7, 1984 faculty meeting and continuing into February of 1985, reality-test efforts focused on preparations for the schoolwide trial of the Student-At-A-Glance and Class-At-A-Glance forms. These preparations followed two paths. At the school, they headed toward building informed interest and involvement on the part of classroom teachers. At the District, they proceeded toward completing technical prerequisites for the production of the forms themselves.

The November 7, whole-staff meeting was one of two main events toward the former goal. Classes were abbreviated to accommodate a nearly three-hour gathering, and the agenda followed the general plans cited earlier. (Exhibit #3 displays the agenda in outline form, as distributed to the faculty. Exhibit #4 shows it in the more detailed form developed for Work Group members. Names of King staff printed on the originals have been replaced here with their role titles.) The meeting proceeded through the issues indicated in the more detailed, Work Group agenda, with faculty members in the audience occasionally posing questions throughout the general presentations up to the 8:55 a.m. break. The small group sessions that followed were animated. The tone of interaction throughout was constructive and positive, even when teachers had suggestions and questions.

Some of the dialogue that took place in this meeting is described in Part III below, and that dialogue illuminates many of the staff's reactions to what they heard. Several points, however, are relevant to make here.

In their presentations, the Work Group faculty members outlined the derivation of the various pieces of information included on the forms. They also emphasized that the prototypes presented were "a first shot; they can be changed." While they underscored various ways in which particular data could be used, they each in their own way reiterated the words of the English Teacher: "They are not prescriptions for anything; we don't have to do anything [about the forms], we're not being told we have to do anything with this information, but hopefully it's something we can use in different ways." UCLA project directors echoed these same perspectives in their presentations. Throughout, the message "we invite you to come and help make it better" was explicitly stated and implicitly conveyed.

Exhibit #3

KING HIGH SCHOOL

FACULTY MEETING

Wednesday, November 7, 1984

AGENDA

7:15 - 7:30 a.m.	INTRODUCTION TO PROCESS Teacher Decision-Making (Principal/Asst. Principal)
7:30 - 7:40 a.m.	UCLA PROJECTS AND PARTNERSHIP EXPLAINED ((Leigh Burstein/Ken Sirotnik)
7:40 - 7:55 a.m.	OVERVIEW SURVEY (Work Group English Teacher)
7:55 - 8:30 a.m.	STUDENT-AT-A-GLANCE CLASS-AT-A-GLANCE (Work Group Teachers of Social Studies, Foreign Language, and Science/Health)
8:30 - 8:55 a.m.	SCHOOL-AT-A-GLANCE (Leigh Burstein/Ken Sirotnik)
8:55 - 9:05 a.m.	BREAK
9:05 - 9:35 a.m.	SMALL GROUPS
9:35 - 9:50 a.m.	WHAT'S NEXT? (Work Group Math Teacher/Dept. Chair)

Exhibit #4

Teacher Meeting, November 7, 1984, 7:15am
Tentative Agenda for Teacher Meeting

7:15-7:30 Introduction (Principal) Refer to 2 page statement about King-UCLA collaboration.
How does this collaboration blend in with King efforts at School Renewal?
How did the relationship get started?

7:30-7:40 UCLA opening comments (Leigh Burstein, Ken Sirotnik, Don Dorr-Bremme).
What is CSE's purpose for participating in the King Collaboration?
What are the basic ideas behind comprehensive information systems for school-site renewal that we are interested in studying?
What do we expect to gain and what do we provide in return?

7:40-7:55 Working Group perspectives (Work Group English Teacher).
What has happened to date?
How were these topics chosen?
What's the purpose of the student survey?
How has it been used so far?

7:55-8:30 Purpose, development, and expected application of Students-At-A-Glance and Class-At-A-Glance reports (Work Group teachers of Social Studies, Foreign Language, and Science/Health).
What are these forms intended to do?
How were the types of information chosen?
Why is the information presented in the way it is?
Why are the formats the way they are?
What are the plans for implementing these reports?

8:30-9:05 BREAK

9:05-9:35 Small-Group sessions headed by Working Group Teachers.
How will they use the information?
What might they like to have that is not included?
What won't they use?

9:35-9:50 What Next? (Work Group Math Teacher/Dept. Chair).
What are the next steps in the collaboration?
What new initiative should be considered?
Who else wants to participate in working group activities?

After the post-coffee-break small-group sessions chaired by Work Group members, the latter described, one by one, the issues raised in each group. An illustrative sampling:

-- Our group focused on the contrast between the students who say they expect to go to a four-year college and the five-to-seven percent who actually go. We talked about why. Something's wrong somewhere.

-- We talked about the importance of surveying parents about what our former students are actually doing and what classes they felt were valuable. Someone added that we can use this to document to the Board that we aren't a prep school.

-- The first comment in our group was, "This is futile. It requires me to make an individual prescription for every kid's teaching. I'm a Darwinian and I think the fittest will survive no matter what."

-- We didn't come up with any solutions for it, but we said that students need to use the roll book [to help teachers enter grades, etc.], so there has to be a way to keep this out of the students' hands.

-- The teachers in my group felt the data was more informative than they thought it would be... but one said GPA should be off the form; it's hard to tune out and it could create a self-fulfilling prophesy.

In the context of these more general reactions, leaders of the small groups recounted some specific suggestions, among them: add a code to "flag" learning disabled and ESL (English as a Second Language) students; list truancies separate from excused absences; add a "hostility index"; check with parents to see if they object to our having these data.

All in all, the UCLA staff felt that they had obtained useful feedback at the faculty meeting; Work Group teachers reported a generally positive response.

Meeting for a short session a week later (November 15, 1984), the Work Group decided to make only one revision in the prototype Students- and Class-At-A-Glance forms: following a faculty suggestion, students participating in special education and bilingual programs would be "flagged" on Students-At-A-Glance. UCLA staff conveyed these decisions to the District data processing director, and later on they checked in with him several times on progress toward production of the forms. Software to generate the two report formats was written by the data processing staff following UCLA specifications, and actual versions were ready for each class of every King High School teacher by the designated target date, February 20, 1985. The second semester of classes was then in its second week.

In the meanwhile, two other Work Group meetings took place. One (December 11, 1984) whole-day gathering centered on a wide-ranging conversation about the proposed teacher survey and included revising the draft produced by UCLA during the preceding summer. Working in two small groups, participants reduced the number of items and assured that some sets of questions converged on key issues covered in the student questionnaire.

The second meeting, lasting less than an hour during teachers' lunch period on February 12, 1985, was the occasion for final review of the Student- and Class-At-A-Glance information forms. The King High School members of the Work Group suggested one or two refinements, including the use of extra-heavy bond without holes for printing Students-At-A-Glance. (This would make it easier for teachers to differentiate it from their other papers, impossible for them to put in their 22-hole roll books, and thus would facilitate their keeping the information secure.) The issues to be emphasized in presenting teachers with the forms for their classes were also sketched out. It was decided to distribute them in the context of small-group meetings during teachers' free periods.

These meetings took place throughout the school day on February 20. Each session unfolded in the same pattern (see the agenda used by UCLA staff, Exhibit #5). The UCLA project directors began by once again reviewing the project's history and goals. In so doing, they emphasized the experimental nature of the forms. "The objective here was to do an exploratory study," one of the project co-directors explained. "These are just examples of what can be done with information. The Work Group took their best shot at developing something that would be generally useful. The idea was to put this together and see how you liked it, how you might use, how you might want it changed next time around." The UCLA speakers also acknowledged the issue of information creating "the self-fulfilling prophecy," and encouraged that it be used "professionally, discreetly, confidentially." Teachers raised questions throughout this portion of the presentation. Many of their queries occasioned UCLA participants to reiterate that "the data don't dictate to you. This is a basis for dialogue, reflection -- something you might want to think about."

Packets of Student- and Class-At-A-Glance forms -- one of each for each of their second-semester classes -- were then distributed to teachers. UCLA people reviewed them column by

Notes for King High Period-by-Period Meeting with Teachers [illegible]

EXIHIBIT 5

Dissemination and Discussion of "At-A-Glance" Forms

1. Greetings/Introductions/Pass out teacher packets.

2. Recall context of our study:

    - The "work group": A collaboration among a dozen or more teachers, couselors and administrators, and several UCLA staff.

    - Student survey conducted last May to add student attitudes and perceptions to the other data on students already available in the district's information system.

    - The idea was to try out several ways of reporting and hopefully using this information.

    - The work group came up with three possible ways to organize and use information and presented these at a staff meeting last semester: student-, class-, and school-at-a-glance forms.

    - The work group requested that the district produce student- and class-at-a-glance forms for trial testing this semester.

3. Review these forms: what is on them and how to read and interpret them.

4. Primary objective:

    This is an exploratory study. These particular reports are just examples of what can be done. Our goal is to see if information like this -- or any other information you might like instead -- can be useful to have available for classroom teaching and learning.

5. Some initial thoughts of the work group regarding use/abuse issues:

    - Information should not be used in ways that bias teachers' perceptions and create self-fulfilling prophecies for students.

    - Rather, information should help guide initial decision-making or help in solving problems that come up later; examples are: forming small instructional groups and dealing with late assignments.

    - Confidentiality -- the work group is very concerned about maintaining confidentiality of the information. The data on students are meant only for the professional use by staff and should not be available to anyone else but the staff.

    - Discreet vs. conspicuous use of information in presence of the student -- an example dealing with late assignments: "Are you working, is it interfering with your homework, how do you feel about yourself as a student?" versus "I see here that you are working half time, have a low self-concept, no wonder you turn in homework late!"

6. To help structure your evaluations of all this, we have drawn up a form (see back of this sheet) listing some general issues to keep in mind. Please feel free to record your observations/comments on this form over the next couple of months. We will meet again in May to get your feedback. Thank you very much!

Student- and Class-
At-A-Glance Forms

ISSUES LIST

1. Uses at the beginning of the semester:

2. Uses during the semester:

3. Useful data modifications, i.e., revisions, deletions, additions of information:

4. Useful format changes:

5. Abuses to be concerned about:

6. Other comments/concerns/recommendations:

column, graph by graph, explaining the origins of the data displayed and the meaning of the coding symbols used. Questions were asked and answered along the way, and teachers departed with their forms.

Thus the curtain rang down on the third phase of the King High School reality test.

Phase 4: Assessing Uses and Reactions, Making Revisions, and Planning Next Steps

From February 30 through March 18, teachers were left to do whatever they chose with the "at-a-glance" forms. In the meanwhile, events were under way in the District office which seem to have had a significant influence on the future course of the project.

As recounted earlier, District officials had expressed concern about costs of the reality test as early as September, 1984. These concerns appear to have continued into (or, at least, resurfaced again during) February of 1985. On the thirteenth of that month, the Assistant Superintendent for Instructional and Support Services (District liaison for the project at King) wrote a memo to the Superintendent stating that "the (School Principal) and I feel that the amount of money necessary to continue [with this and related UCLA projects] may exceed our capabilities." The memo portrayed the King High School reality test (incorrectly) as an activity connected with the Southern California Educational Partnership, a consortium of districts, county offices, and community colleges that met under the auspices of the Laboratory in School and Community Education at UCLA (Dr. John I. Goodlad, Director.)[5] Thus, in accounting for expenses the Assistant Superintendent's memo to the Valley Unified Superintendent continued as follows:

> The district assessment for continued participation [in the Partnership] is approximately $4,600, in addition to that amount we have spent $3,000 additional dollars in working on the School at a Glance (sic) Programs. We have also released teachers to attend various meetings and, of course, administrators are off campus when they participate in Partnership meetings as well.

The memo acknowledged that "it has been good for the teachers, the administrative staff and for me to be involved. We have learned a lot from our association with the Partnership and I believe some good programs such as Students at a Glance, Class at a Glance, and School at a Glance... have all evolved at King High School." The recommendation of the Assistant Superintendent, however, was to discontinue participation in all "Partnership" activities (including the reality test) during the coming school year.

On February 27, the Superintendent followed through on that recommendation, notifying the Partnership of Valley Unified's withdrawal from participation in the 1985-86 school year. In doing so, he noted the value of the participation "particularly in the projects at King High School," but cited "commitment and expense beyond our capabilities as a large, low-expenditure, suburban school district." What more, if anything, District officials might have considered in reaching these judgements was impossible to discover.

A return letter from the UCLA Laboratory in School and Community Education reiterated the distinction between the

Partnership and the CSE/NIE information system project. It also noted that:

> Most of (one project director's) time and all of (the other project director's, the participant observer's) and research assistants', secretary's and programmer's time on the King project have been financed by CSE/NIE. This has supported all the salary, travel, development (e.g., questionnaire), secretarial, and programming costs incurred on the university side of the project.

Notwithstanding this effort to communicate the CSE/NIE - Laboratory/Partnership distinction and to underscore UCLA's financial support, the bottom line of the Valley Unified Superintendent's letter stood: "It will be a pleasure to continue those projects currently underway through the remainder of this (1984-85) school year," but not thereafter.

UCLA directors of the comprehensive-information-system project had, of course, always intended that King High School personnel would increasingly take charge of project decisions and activities. They had, however, planned a more gradual transfer of responsibilities through a period lasting through October of 1985 (when the CSE/NIE grant would end). For instance, in a tentative time-line set down in October of 1984, UCLA staff envisioned six meetings with school and District staff in the months between June, 1985 and October of that year. These were planned as occasions for providing continued technical assistance on the implementation and/or analysis and feedback of the anticipated teachers survey and a possible parent survey, as well as opportunities to help in any desired modifications of the student- and class-level reports. The six meetings would, as the

UCLA group conceived them, also afford chances for gathering staff members' evolving reactions to the information-system idea. These plans were voided by the District Superintendent's decision. Thus, the remaining months of the 1984-85 school year became a time for assessing teachers' responses to and uses of the "at-a-glance" forms, for making any revisions in the surveys or forms that seemed appropriate, and for transferring information-system responsibilities to members of the King High School staff.

The first of these tasks got under way on March 18 as the project's participant-observer began to interview classroom teachers. These open-ended interviews averaged about an hour in length and revolved around five basic issues: (1) what the teachers had done with the information forms since their distribution in February and why they had done that; (2) what changes, if any, that they would like to see in the content, format, or distribution of the forms; (3) what negative consequences, if any, they had identified as a result of having the information (including any abuses of the information they were aware of or concerned about); (4) how, so far as the interviewee knew, others on the staff had reacted to the forms, had used them, etc.; and finally (5) whether they saw any value (and if so what value) in conducting the proposed teacher survey and/or a parent survey. Eighteen teachers among King's classroom staff of 83 were interviewed about these issues. In addition, five others on the staff -- the Principal, an Assistant Principal who had served in the Work group, a counselor on the the Work Group, and two secretaries who handled requests for information from District files -- were interviewed to gather information on the impact of the forms.

More data on the consequences of the "at-a-glance" forms and the project in general were gathered on May 1, once again in small-group meetings during teachers' free periods. As UCLA staff met with King instructors throughout the day, they requested first that they fill in a questionnaire (Appendix C) about the "at-a-glance" forms, then they opened the floor for a general discussion of the forms and the overall concept of the information-system project. In all, 52 (62%) of King's 83 classroom teachers attended the May 1 sessions. Questionnaires were returned by 49 of them.

The next week (May 7, 1985), the final meeting of the joint UCLA-King High School Work Group took place. UCLA staff took the position that decisions about the future of the project were entirely up to the King staff. One of the UCLA project directors set the agenda as follows: "Today, we're supposed to talk about 'what next?' with a focus on whether you want to do further surveys this year and what purposes might be served in doing them. And if you decide to go ahead, what should be on the surveys?"

The school's Principal explained that "the District will support the project through the end of this year. They'll support whatever surveys we want to do, and and they'll run the report forms [Student- and Class-At-A-Glance] in September." Discussion then turned to a review of the interview and questionnaire data gathered from the faculty at large by UCLA.

With this feedback as background, a wide-ranging discussion ensued. It revolved around whether to readminister the student questionnaire, when, and in what form. The idea of asking the entire faculty to vote on readministration was quickly rejected. As one teacher argued, "It's too early [in the course of the trial] to let them decide, and people are feeling negative anyway." The counselor member of the Work Group concurred: "One negative voice in a faculty meeting can sway ten." "If we're going to be able to look at longitudinal patterns," another teacher pointed out, "let's not ask. Let's just do it." The Principal's suggestion to conduct the student survey in the fall, rather than in the spring, was also turned aside. Teachers maintained that it was important to have their "at-a-glance" forms in hand just as the next school year started. And finally, after some debate, the idea of dramatically cutting back on student-survey questions and restricting the instrument to items that fed into the "at-a-glance" forms was dismissed. As one teacher argued, thinking of the withdrawal of District support, "If you eliminate questions now, at this point, you're restricted to the information on these forms forever. You can never change them [the forms] or expand it [the questionnaire] again. So I don't want to see it pared down too quickly. That would be cutting the possibility of changes." Added the Principal, "And besides, there's stuff on this survey you want to track from last time to this time, for instance, whether the kids see drugs as a problem."

Thus, the decision was reached to readminister the student survey soon, during the spring of the 1984-85 school year, in an only slightly edited form.

Doing the editing consumed the next two hours of the all-day session. In the end, the changes in the instrument were minor. For example, the group agreed to drop questions regarding which types of students are "most popular in this school," on whether boys or girls "get a better education," and on how easy it is "to get books from the school library." A long list of items that elicited student preferences for different types of instructional materials was also eliminated. The wording of other questions was slightly altered; some response choices were changed (e.g., in such questions as "Indicate whether you participate in the following activities"). In addition, a few new questions were added: e.g., an item to elicit more information about students' post-school, vocational plans; an item to identify parents' educational level (pending clarification of the privacy issues it might raise). A copy of the revised student questionnaire appears in Appendix D.

After a break for lunch, the Work Group took up two more issues: (1) the planned teacher survey and (2) future management of information-system activites.

The often-deferred teacher survey had been revised twice after an initial, very long draft was assembled by UCLA. A formal Work Group meeting in December had reduced the number of questions and keyed some item sets to issues covered in the student attitude instrument. Then, on March 18, a few teacher members of the Work Group had come together during the noon hour to make final refinements in the form. By May, however, the social situation in the school had evolved in ways that raised questions about the advisability of surveying teachers' attitudes. A group of faculty members had constituted a "Faculty Forum" to discuss working conditions and, especially, issues of communication with King's Principal. After a first, noon-time Forum meeting, the Forum's "steering committee" (including several teachers in the UCLA-King Work Group) had presented a list of concerns to the school administration for discussion. The Principal responded by meeting with the steering committee in order to begin addressing these issues.

In this context, some Work Group faculty felt that a general teacher attitude survey was especially appropriate. "We have a vehicle to use this [the proposed teacher survey] for dialogue -- the Faculty Forum." "We've also been having department-by-department meetings with administrators to set goals for next year," explained another. "This funnels right into that, too." These perspectives carried the day over others' argument that a teacher questionnaire would merely serve as "an outlet for faculty negativism right now." In the end, King Work Group members decided to administer the teacher questionnaire that had already been developed, to do so sometime in May, and to report the results to the staff in September "when we can dialogue around it."

In the final stages of this last May 8, Work Group gathering, tasks was listed on the chalkboard to identify the work to be done in order to (1) administer and tabulate the revised student attitude survey (2) to administer and tabulate the teacher attitude survey, and (3) to generate new

"Students-At-A-Glance"and "Class-At-A-Glance" forms for each teacher at the outset of the 1985-86 school year. Various Work Group members from King volunteered to assume responsibility for these tasks, while UCLA staff outlined their commitment to providing technical assistance and support. King teachers, for example, would duplicate the surveys, oversee the District production of appropriate answer sheets, and actually administer the surveys. UCLA would direct the data processing unit in how to revise their "at-a-glance" programs. UCLA staff would enter student survey results on the questionnaire form and would tabulate and return results of the teacher questionnaire. In addition, UCLA project directors promised to remain available to answer questions, provide advice on data analysis, etc.

As King High School's 1984-85 school year drew to a close, the plans outlined in the last Work Group meeting were carried out. There was only one exception: the teacher survey, scheduled for administration in May, was deferred until the fall of the following school year. Exactly why it was put off was not clear, but word reached UCLA that there was simply no good time to administer the instrument amidst the hectic, end-of-the-year schedule. The revised student survey, however, was administered; and by July there was every indication that King teachers would receive "Students-At-A-Glance" and "Class-At-A-Glance" forms for each of their classes when school opened in September.

This chronicle has traced the eighteen-month reality test process through its four general phases. In so doing, it has recounted the evolving course of events and has highlighted key project decisions. The results of those efforts are described next, in Part II.

PART II

THE RESULTS

The UCLA-King High School reality test generated "results" of two types: (1) responses by the high school staff (and, secondarily, District personnel) to the project's processes and products; and (2) learnings about the issues that can arise in developing and implementing a comprehensive information system in a secondary school. The latter are treated in Part III under the heading "Analysis and Lessons." Here in Part II, results of the first type are presented under five headings: An overview of Project Results; Use and Non-use of the Information Forms; Ethical Issues; Attitudes toward the Project; and Prospects for Sustaining the Innovation. The first, overview section highlights some of the principal reactions of King staff. The sections that follow elaborate and augment these, completing a description of what happened in response to project efforts.

An Overview of Project Results

- About half the classroom teachers reporting said that they did something more with the "at-a-glance" forms than simply look them over and put them away.
- Teachers who made some use of the forms did so primarily at the beginning of the semester, soon after they received them.
- Most teachers who used the forms focused on the Student-At-A-Glance; as opposed to the class-level, aggregate data on Class-At-A-Glance.
- In using the Student-At-A-Glance form, teachers reported that they gave most attention to students' grade point averages, standardized test scores, educational expectations, academic self-concept, and attendence/absenteeism. Other data on the form (Appendix B) was deemed less useful.

- This Student-At-A-Glance information was used for a wide variety of purposes, but most commonly as a reference tool in formulating a general picture of the class and/or particular individuals within it, e.g., "to discover the basis for low performance," "to discover if students are working up to their abilities," "to establish brief background." Less often, student-level data explicitly informed teachers' actions in working with individual learners in their classes.

- When it was used, Class-At-A-Glance data (Appendix B) seems to have influenced teachers' choice of classroom learning activities.

- Non-users tended to disregard both forms, arguing that the information was irrelevant to their work or that it might bias their view of students. Some teachers with year-long classes maintained that the information forms would have been helpful if they had been distributed at the beginning of the school year.

- When information was used, it was used almost exclusively by individual teachers in their own classrooms. There were few group or "social" uses of information presented by the project, e.g., to address departmental or program-related issues.

- The School-At-A-Glance form (Appendix B) was reviewed by the faculty on one occasion. One piece of student survey information was used in arguing for the hiring of a female counselor. Otherwise, school-level aggregations of the student survey data had little discernible impact on King High.

- When asked about potential "abuses" of the at-a-glance information, teachers routinely expressed concern about two issues: (1) the possibility that the presence of the information would prejudice teachers' views of students and create a "self-fulfilling prophecy"; (2) the possibility that students might see the forms, thereby violating their classmates' privacy and the confidentiality of the information.

- Teachers' overall reactions to the information forms and the project in general varied widely. They can probably best be represented by a bell-shaped curve with very positive and negative reactions among small groups at the extremes: "This is pie-in-the-sky idealism and not practical in the real world of mass education"; "I think this is SUPER! Thank you." The Principal's response to the project was very positive.

- o As UCLA involvement in the project phased out, it seemed highly likely that Student-At-A-Glance and Class-At-A-Glance forms would be distributed to all teachers again at the outset of the 1985-86 school year. Whether King High School would continue to maintain and develop the information system, however, appeared more problematic.

Use and Non-Use of the Information Forms

The three information forms produced during the reality test were, from the perspective of King High School and Valley Unified staff, the project's main products. From the perspective of UCLA researchers, teachers' responses to these forms were one of the most enlightening aspects of the reality test. After some general observations, the discussion of these reactions below revolves around the three separate forms -- Students-At-A-Glance, Class-At-A-Glance, and School-At-A-Glance. Thus, it proceeds from the most-used to the least-used information.

General Observations on Use and Non-use of the Forms

Of the 49 classroom teachers who responded to UCLA's questionnaire on the use of the Student- and Class-At-A-Glance information forms:

- o 20 teachers reported that they took the information on both forms into account in one way or another.
- o 7 teachers reported using one form but not the other. Of these, three claimed use of Students-At-A-Glance information, while four claimed use of the data provided on Class-At-A-

Glance. All these teachers, however, cited their frequency of use as "seldom."

- 17 teachers reported that they merely glanced over both forms, then put them away. (These teachers, together with one who refused even to look at the forms, are referred to hereafter as "non-users.")
- Four teachers reported that they never received the forms. (Among these were two long-term substitutes who arrived at King High School after the forms had been distributed.)

Thus, it would appear that about half the faculty members responding to the UCLA questionnaire made some use of the "at-a-glance" information.

Of the 20 teachers who reported taking information on both forms into account, 15 asserted that they focused on the Students-At-A-Glance form. Furthermore, all but a few teachers stated that they gave attention to both forms primarily at the beginning of the semester.

Whether these findings are in any sense representative of the practices of the King faculty as a whole is problematic. Reasons for staying away from the May 1, period-by-period, small-group meetings probably varied among the 34 classroom instructors who failed to attend. As one teacher Work Group member said when the matter came up during the May 8 meeting:

> Some people probably just forgot. I talked to one colleague who said, "It slipped my mind." But others probably felt, "Oh, it's that survey again. My time's more valuable; I've got better things to do."

Teachers did receive ample advance notice of the May 1 sessions. A memo to all faculty announcing their date and purpose went out during the week of March 18. Furthermore, teachers were apparently reminded of the sessions the day before they took place. (When one late-arriving instructor explained her tardiness to a May 1 session by saying "I wasn't notified; I just heard," the Principal shook his head and commented to the UCLA participant-observer, "Not notified? Geez, a reminder went in each teacher's box yesterday, and they've known about today for six weeks." Under these circumstances, although many teachers with negative views certainly did attend, others probably voted on the project "with their feet" by simply staying away from the May 1 meetings at which questionnaire reactions were gathered. If so, questionnaire-based, numerical estimates of faculty use of the "at-a-glance" forms may be somewhat high. At the same time, however, the verbal and written feedback obtained in the May 1 small-group sessions probably represents the range of faculty reactions quite accurately. (Interview responses from 18 classroom teachers tend to support this conclusion).

Uses of Student-At-A-Glance Information

In all, 23 of the 49 teachers who returned questionnaires indicated that they made some use of the data included on the Students-At-A-Glance form. Eleven pieces of information about each student were listed there. Table 1 shows the number of teachers who reported using each piece.

When asked to mark which of eleven pieces of information they had actually employed, the 23 teacher-users checked off an average of 5.3. Grade point average and test scores from District files, together with survey information on students' educational expectations and academic self-concepts, were the

TABLE 1

Teachers' Use of Student-At-A-Glance Information
(Questionnaire responses; N = 23)*

Number who used information on...	
Grade point average	18
CTBS test scores+	16
Educational expectations	16
Academic Self-Concept	16
Attendence/Absenteeism	13
Liking of School	11
Special Education classification	8
Homework	7
Job/Hours Worked	7
Extra-Curricular Participation	7
Bilingual status	3

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* Teachers who reported that they never received the information forms (n=4) or merely glanced over this form (n=22) are not included here.

+ Percentile scores in reading, math, and language arts from the *Comprehensive Tests of Basic Skills*. For definitions of other data on the Student-At-A-Glance, see the footnote to the sample form in Appendix B.

most frequently cited. Open-ended interview responses paralleled these questionnaire findings. Among 11 of 18 interviewees who said they did use the Students-At-A-Glance form, the three kinds of data most frequently mentioned spontaneously were grade point average (by 10 teachers), CTBS scores (by 9 teachers), and students' educational expectations (by 5 teachers).

Both questionnaire and interview repsondents were asked, without structure or constraint, to tell how they used the Student-At-A-Glance information to which they had attended. Their answers, while diverse and phrased in a wide variety of ways, suggested three predominant patterns of use: (1) general informational uses -- reviewing the data to obtain an overview of a particular class group; (2) diagnostic-explanatory uses -- examining the information in order to "understand" or "explain" the classroom performance or learning problems of individual students; and (3) instructional-decision-making uses -- explicitly using the data as a basis for individualizing students' assignments or classroom groupings, to counsel students, etc. It should be emphasized that distinctions among these categories are based upon _the ways in which teachers described_ what they did with the information on Student-At-A-Glance. Thus, for instance, a faculty member who said that they used the form "to get general background" on a class may in fact have gone on to make instructional decisions based on that background. Similarly, one who emphasized that they employed the data to diagnose the "specific learning limitations" of a student may have taken that diagnosis into account in teaching him or her. The following discussion, then, should be understood as inferential at many points, since it classifies and describes what teachers did based upon their own retrospective, relatively brief, and often quite general, written or verbal accounts.

General informational uses: getting an overview of the class. Ten of the 23 teachers who reported making some use of Student-At-A-Glance information indicated that they did so simply to get a picture of what their students were like. Undoubtedly, many others did likewise (probably including some who briefly glanced at the form then put it away), but nine of these ten cited only this type of use.

Questionnaire respondents concisely described such general informational uses in the following ways:

> -- It gave me a general impression of class achievement level ... I found out student expectations might have been a little optimistic.
>
> -- [I used it] mainly for informational purposes because some of the responses were really too old to do me a lot of good.
>
> -- To get a quick idea/insight without having to go through the cum files.
>
> -- To seek backup information for explanation of students' motivation and level of effort and [to see] if it agrees with what I see in class.
>
> -- I checked the GPA's.
>
> -- You really see a floorplan of what you have in your class.

It is impossible to know, of course, exactly how having this kind of "floorplan" or "general impression" of a class serves individual teachers. Various data collected throughout the project, however, presents some possibilities.

First, a general overview of the class group can simply satisfy curiosity or reveal interesting phenomena. As one social studies teacher said, "I looked it over. I didn't change much in light of it, but I thought it was interesting -- well worth the trouble." Or from the point of view of a math teacher who already knew her students quite well:

> I like information, so I found it interesting. I've had the students in all my classes for the entire year, six months at the time we got the form, so I know some of the information on there is outdated. I'll say one thing though: I think you observe some things about CTBS testing. Some students come up more capable

> [in classwork] than the tests show and vice versa. So, anyway, I found it interesting, fascinating.

This same kind of general curiosity or intellectual interest is reflected in one science teacher's response to Student-At-A-Glance. He entered all the data on the form and with students' grades in his class into a microcomputer. "I was looking for correlations," he explained, "just eyeballing it to see what it can tell me." He allowed that long-term trends in the data could be useful in selecting texts and revising curricula, but rejected the idea that Student-At-A-Glance information could be used in day-to-day teaching. "I think it's a softer thing than that, " he remarked. "It's not in comparing your classes and adjusting your teaching that this kind of data becomes relevant."

Second, a general picture of the students in one class can validate a teacher's experienced-based understandings. To see their impressionistic notions and hunches about specific students and students in general "confirmed" by lines of information on paper was exciting for many teachers; it was an experience that contributed to the fascination and appeal of the information form.

When Work Group teachers were first presented with prototype Student-At-A-Glance (September 6, 1984), for example, they conversed enthusiastically about how the data showed what they knew to be true. "I know this kid," said one teacher pointing to a name on the form, "and is this ever a valid indicator of what he's like!" "This is terrific!" exulted another. "You look at someone like Shawn -- a high GPA, high scores, hardly ever absent, says he's in activities, but says he hates school. That's just like him!" Work Group teachers were also excited about patterns in the data: "This really bears out," noted one, reading across the columns of data. "Low GPA, low test scores, lots of absences -- it's just what you'd expect!" Similar remarks were prevalent among the faculty at large when its members were first introduced to Students-At-A-Glance on November 7, 1984. And in an interview much later, an English teacher summed up well the fascination that can come with having one's personal knowledge of phenomena reflected in numerical form:

> I normally put things like this in my drawer, but I studied them and I found them to be quite accurate, which surprised me! They were quite valuable ... What I really like, if you look you get a good sense of the puzzle that you have in your class.

Finally, a general picture of each student in a class can have important affective consequences for teachers. It can help them answer a serious and abiding question that many teachers face, especially when students are less than successful: "Is it me or is it them?" This need to ascribe responsibility for less-than-adequate learning is not something that all teachers can comfortably discuss, particularly with outsiders such as researchers. For many, the ethics of the profession seems to dictate that teachers should try to "reach" every student. Nevertheless, one teacher did address the matter as follows:

> Based on their [Student-At-A-Glance] profiles, certain ones are doing what you'd expect. So you don't have to feel it's the class; you don't have to feel guilt that you're not reaching them. That doesn't mean you don't try, though. You do. But it helps you sort out what is the teaching and what is the student.

In circumstances where many factors bear upon how well students learn but where schools and individual teachers are increasingly held accountable, in circumstances where time is limited but the number of students to be taught is large, "sorting out what is the teaching and what is the student" may have been one important function of the class "floorplans," "general impressions," and "background" teachers gleaned from Student-At-A-Glance.

Diagnostic-explanatory uses: "understanding" or "explaining" the classroom performance of particular students. Eleven of the 23 teachers who reported on questionnaires that they used Student-At-A-Glance said they did so to help them understand or explain students' classroom performance. For six of the eleven, this was the only type of use cited.

Questionnaire respondents succinctly described this kind of use in terms such as the following:

-- [I used it to see] specific limitations; to help to understand why some students have trouble learning, responding, etc.

-- I used it when individual students tended to have problems which did not correlate with their potential.

-- I used to diagnose/understand why a student may or may not be doing well on tests.

-- Students having difficulty in the subject were the ones which I mostly concentrated on. I noted whether or not they liked school, GPA, and academic self-concept most often.

-- I check CTBS scores when a student is not working well in class.

The interview remarks of one English teacher reveal something about how -- the reasoning through which -- teachers used the form in these ways.

> [Another thing] that was useful was the CTBS versus GPA information. It really helped me know about the student's potential and effort. In Advanced Comp I have a kid at the 50th to 60th percentile in language arts, but with a 3.7 GPA. I really don't know which may be accurate, but it suggests the student is working hard. When there's a high score and a low GPA, it helps me think about how kids are achieving in comparison to their capability... The CTBS on its own isn't that important, but with the GPA, and with the academic self-concept, it gives a total picture.

The comments of a business teacher disclose a similar reasoning process:

> One particular boy had very high scores in reading. He had [CTBS percentiles of] 96, 96, and 91, but showed a GPA of 1.53. Now the counselors should pick up on that! What a shame to score so high then waste time getting a 1.5 GPA. Then we see some of the kids with a high GPA and lower skills [i.e., as measured by tests]. They're working so hard. When you see a student with high skills, up in the 80th and 90th percentile, then you see him sloughing off, I may lay it on a bit harder, expect more work of him.

In these accounts, emphasis was placed on explaining how or why a particular learner comes to be performing as he/she is, especially if he or she is not doing well. Consulting Student-At-A-Glance, teachers found explanations for such performance through a process of practical reasoning e.g., the student is capable (indicated by test scores and/or overall GPA) but not applying himself in my class (as indicated by poor grades on tests or routine assignments; the student is able (high test scores) but generally lazy (low overall GPA); the student rarely does well (low test scores, low GPA) and has attendence problems (high number of absences). It is worth noting that teachers' interpretation of CTBS percentiles as a benchmark, as a solid indicator of apptitude or capability, was an extremely common phenomena. (See Sirotnik and Burstein, 1985, pp. 37-39 for further discussion.)

In some cases, the diagnoses or explanations teachers found in Student-At-A-Glance probably served the same functions as the overall class portraits they derived from the form: satisfying curiosity, confirming hunches or raising further questions, parceling out responsibility for achievement between the student and themselves. Teachers did not explicitly cite any of these functions. As the quotes above indicate, they simply spoke of the role the data played in helping them "understand," "explain," or "think about" a student's class performance. In other cases, however, a diagnosis clearly led to a prescription. This is merely suggested in the remarks of the business teacher quoted above; it will become much more obvious in the comments of other teachers quoted in the next section.

Instructional decision-making uses: using the information to guide placement, instruction, and interaction with students. Seven of the 23 teacher users of Student-At-A-Glance explicitly mentioned instructional decisions that they made or actions that they took based on the student-level data that the form displayed. Of these, three recounted only uses of this type. (The four others also cited using the form for diagnostic-explanatory purpose such as those described above, i.e., to understand or explain student performance, without stating that they took any subsequent action.)

The instructional decisions that teachers said that they made based on Student-At-A-Glance were varied. Most, however, involved one of the following: screening students for, or placing them in, particular instructional situations; adjusting, adapting or otherwise "individualizing" assignments; and "counseling" or advising students or their parents.

Placement, screening. Two teachers reported using the Student-At-A-Glance in forming cooperative learning groups in their classes. One elaborated the process:

> At the beginning of the semester I had an influx of 12 to 15 students from another Spanish class. I had to integrate them into my class. Of course I could have spoken to the other teacher but we're all busy here, as you know. So I looked at their scores, GPAs, attitudes toward school, etc., so I could get a sense of who the kids were. I felt I was able to make more intelligent decisions than I ever could have otherwise. This was the most important use of the information on the forms for me.

An English teacher recounted another screening or placement use:

> We used them right at the beginning to level classes. Literature classes must be kept at 36 students. I had one with 38, another with 40. So we [the counselors and I] looked at the forms to see who might struggle. This was our first resource!... So we looked at reading test scores and GPA and attendence and advised the ones least likely to do well [to select another class].

A physical education teacher checked the attendance data to see which students routinely missed her first period class but not other classes. "I got one girl transferred to fourth period gym," she explained, "and now she's there every day." This same instructor used GPA and test scores in math to help her choose students who could serve as teaching assistants in her large classes. Similarly, a business teacher who ran the office-practice class reported using GPA, attendance, and "attitude toward school" information to help identify students who were qualified for this off-campus program.

Individualizing assignments. Several users of Student-At-A-Glance explained that they employed the data in order to identify and respond to individual differences among students. The following interview descriptions are illustrative:

> -- The Student-At-A-Glance I used a half-dozen times with high-test-score, low-achievement [GPA] kids: first, to ask them why they didn't like school, then to ask them how they'd like to work in class... [also] I identified a couple of really bright kids and gave them extra assignments. If you've taught you know that some bright kids just hang in, don't become obvious. I used the [CTBS test] scores to identify them and gave them extra assignments.
>
> -- I used it in identifying reading problems. I usually give them a reading test when they first come in. Now that I have Students-At-A-Glance, I cross the information from that with the information on the form. I had lots of students with reading problems this year, and I've had to adjust the material and the assignments accordingly.
>
> -- A good GPA correlates highly with a good, combined, written and verbal score on the [CTBS] test. In British Lit., the class as a whole had a mean GPA of 2.4. I looked at the mean overall GPA for the class. This showed weaknesses. Then I looked at their likes [on the Class-At-A-Glance activity preference list], and this showed that they were a verbal group. So I've restructured the whole class with an emphasis on essay writing, on writing skills -- but also with more emphasis on oral communication. As we work more on writing skills we move slower; we talk more at each point about what is written and about the

> writing. When I fist heard about all this [information-system project], I'll admit, I was cynical. But now I think it's great!

Another English teacher spoke of using the forms to inform her "personal interactions" with students. "The first thing I looked at," she said, "was the academic self-concept... It's made me more reponsive to them as individuals."

Counseling, advising. Two teachers mentioned that they referred to Student-At-A-Glance data as they counseled students who were on the verge of quitting school. Two more cited uses in discussing post-high-school goals with students. And yet another two reported that they reviewed the student-level information prior to advising parents about their children's academic or attendence problems.

Students-At-A-Glance and CASA information. The Student-At-A-Glance form clearly seemed interesting and useful to a substantial number of King's teachers, but it included only a sub-set of the information available on students. The District's CASA (Computerized Accountability for Student Achievement) information system contained a great deal more. Teachers could obtain much of that through the Activities Referral Form (or ARF, Exhibit #2, p. 21) and other district reports. It is resonable to consider, then, whether routinely presenting teachers with some information on the students in their classes encouraged them to inquire further about individual learners. Did Students-At-A-Glance serve to stimulate teachers' interest in ARF data or other information available through CASA?

Apparently it did not. One secretary in King's main office routinely handled all teacher orders for Activity Referral Forms.

In an interview, she reported only one teacher request for an ARF in the five weeks after the at-a-glance forms were distributed. (This order for two ARFs came from a Work Group teacher who used them, together with Student-At-A-Glance, in counseling students.) Aside from this, the secretary explained, "I haven't had a request for an ARF in months and months. I certainly haven't noticed any increase lately!" A second secretary who served as a conduit for special information reports from CASA files replied in similar fashion. Furthermore, the 18 teacher interviews and the May 1 period-by-period meetings with teachers surfaced only the one Work Group teacher's request for two ARFs. No others alluded in any way to CASA data. And the school's counselors reported that there was no notable increase in requests for information about individual students or for meetings with them to discuss particular students. Apparently then, Student-At-A-Glance did not serve as a catalyst to further information gathering through formal channels; it did not stimulate increased use of extant District information.

The foregoing discussion recounts all the various uses for Student-At-A-Glance information that were described in questionnaire, interview, and discussion responses by King High School teachers. Table 2 summarizes questionnaire reports of teachers' uses by the categories of use defined in this section.

Table 2

Teachers' Ways of Using Student-At-A-Glance Information
(Quationnaire responses; n=23)*

Number who used the information for . . .	+
General information purposes:	
Getting an overview picture of class	10
Diagnostic-explanatory purposes:	
Understanding or explaining individual Students' class preformance	11
Instructional-decision-making purposes:	7
Placing, screening students	4
Individualizing assigments, ets.	3
Counseling students, advising parents	4

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* Teachers who reported that they never received the information (n=4) or merely glanced over this form (n=22) are not included here.

+ Numbers in this column exceed the total number of teachers (n=23), since individual teachers could and did report using the information for more that one of the purposes listed.

Uses of Class-At-A-Glance Information

Of 49 teachers who returned questionnaires to the UCLA staff, 24 indicated that they had taken into account information included on the Class-At-A-Glance form. That form graphed survey data on three topics: (1) the instructional groupings in which students preferred to work; (2) whether or not they liked the general class subject, e.g., math, English, industrial arts; and (3) the types of classroom learning activities they preferred. The graphs aggregated the data such that each point represented two percent of the students in the particular class. (See the sample Class-At-A-Glance form in Appendix B for details.)

The "use" questionnaire asked teachers to indicate which of the three graphs they had employed since receiving their class forms, and the 24 teacher users checked off an average of 1.6. Overall, as Table 3 illustrates, responses were rather evenly divided among the three.

Table 3

Teachers' Uses of Class-At-A-Glance Information
(Questionnaire responses, n=24)*

Number who used information on ...	
Instructional grouping preferences	11
Liking of subject	11
Learning activity preferences	13

---

* Teachers who reported that they never received the information forms (n=4) or merely glanced at this form (n=21) are not included here.

In general, the Class-At-A-Glance form attracted less attention than Student-At-A-Glance. Of the 20 responding teachers who said that they made some use of both, 15 stated that they focused on Student-At-A-Glance; three indicated that they attended to both forms "about equally." Only two reported that their attention centered on Class-At-A-Glance. (For one explanation of this preference pattern, see Sirotnik, Dorr-Bremme, and Burstein, 1985.)

In general, too, faculty members' descriptions revealed that their uses of the class-level information were less diverse, more consistent from teacher to teacher, than were their uses of Students-At-A-Glance. Two patterns of use emerged in their questionnaire responses: (1) use of Class-At-A-Glance for general informational purposes and (2) use of Class-At-A-Glance for planning instruction.

General informational uses: getting a sense of classes' likes and dislikes. Seven of the 24 teachers who claimed use of Class-At-A-Glance indicated that they utilized it to obtain "a general feel for" or "background" on how their classes felt about the various issues the form addressed. Of the seven, six cited only such uses. They expressed themselves as follows:

> -- I used it for having a better feeling of how kids felt about my subject.
>
> -- I used the liking of foreign language statistics -- interested to note since I teach a foreign language.
>
> -- Mainly to get a better expectation of the effort the class would put into classwork and homework.
>
> -- Generally I used it to understand the "chemistry" of the class. The differences from class to class was made clear by this summary.

This general view of class chemistry or preferences seems to have served teachers in the same ways that the overview class pictures derived from Student-At-A-Glance served them. That is, the information satisfied curiosity, confirmed impressions, and helped "explain" phenomena that arose in the course of day-to-day class life. The account of one interview respondant, a math instructor, affords an insight into these functions:

> The first thing, and the only thing, I did with the Class-At-A-Glance was look at attitude toward math. I found that very interesting. My three geometry classes all seem similar in terms of ability, grades, and so on. But the first group is much more pliable, easy to work, as compared to the second class the very next period. With them, I have to pull teeth to get them to do anything. The information really helped. It

> explained what I'd noticed. By February, I had a feel for it, but this really helped verify or explain what I'd noticed or was experiencing.

Instructional planning uses selecting and adapting classroom teaching-learning activities. Twelve of the 24 teachers who employed Class-At-A-Glance information stated that they used it in planning for teaching. Eleven cited only this kind of use; the other stated that she also employed the form to get a better feel for the class attitudes toward her subject.

Nine of these teachers worded their questionnaire responses such that they emphasized the planning of classroom learning activities, as the following quotations succinctly illustrate:

> -- I used it to plan activities.
>
> -- I used it in planning how I was going to present information.
>
> -- I used them at the beginning of the semester when I was planning what kinds of methods to use for each class.
>
> -- For planning activities, grouping, structure of schedule, i.e., individual reports versus group projects. I have found the results gratifying... This semester's class enjoys instead of endures the class I teach.

The other three teachers who used Class-At-A-Glance data for instructional planning cited uses in selecting appropriate materials and/or in arranging instructional groupings to meet class preferences. All of these uses, of course, were ones that Work Group teachers had in mind when they selected questionnaire data to be displayed on this form.

The following statements by interview respondents lend color and depth to the outlines provided by the questionnaire responses above:

> -- In Spanish with my sophomores and juniors, I used the charts to see the types of activities they liked. They're a touching-feeling kind of group, so I've had them learn vocabulary by touching and feeling. I brought in some South American clothes that I had, foods, other kinds of things that they could handle, to help them develop vocabulary.
>
> -- My fifth period class in anthropology was very interested in drawing and making things, so I'm having them work with maps of the world and artifacts and do physical things, taking into account their learning preferences.

The data on Class-At-A-Glance, however, did not override users' judgments. One foreign language teacher pointed out that even though the form showed that most students did not like to listen to guest speakers, she had recently invited one to her class. On other occasions, the teacher added, she did try to take students' preferences into account. For instance, she encouraged oral reports in one class but not in another where the data indicated that many students did not like listening to their peers. Then, explaining her reasoning, she said:

> It depends on how important it is to the class as a whole. For instance, the guest speaker stressed the uses of foreign languages in the military services, so I thought it was important for them to hear about that, especially those in our Career Magnet. It can be worth taking a gamble like that to change their attitudes.

In summary, the Class-At-A-Glance form attracted less attention from teachers than Student-At-A-Glance. While some used class-level data for general information, most of those who employed it did so in adapting teaching-learning activities to the preferences of different class groups. And as they did they exercised their own professional judgments regarding when and how much to take class viewpoints into account.

Table 4 summarizes questionnaire reports of teachers' uses of Class-At-A-Glance by the use categories described in this section.

Table 4

Teachers' Ways of Using Class-At-A-Glance Information
(Questionnaire reponses; n=24)*

Number who used the information for...

General informational purposes:		
Getting a sense of classes likes and dislikes		7+
Instructional planning purposes:		12
Choosing class teaching-learning activities	9	
Selecting appropriate materials	1	
Choosing grouping arrangements	2	
No description of uses provided		6

---

[*] Teachers who reported that they never received the information forms (n=4) or merely glanced over this form (n=21) are not included here.

[+] Numbers in this column exceed the total number of teachers (n=24), since individual teachers could and did report the information for more than one of the purposes listed.

Non-Use of Student and Class Information

Among the 49 classroom teachers who provided questionnaire reactions to the Student-At-A-Glance and Class-At-A-Glance forms, 18 indicated that they made virtually no use of either. Seventeen of these selected a questionnaire option which stated, "I glanced over the forms, but then put them away." One simply refused to accept the forms for his classes.

The reasons these teachers offered for not using the forms varied, as Table 5 shows. (The response choices presented on the questionnaire and displayed in Table 5 were based upon data from the open-ended interviews, and the patterns of response in the table and in the interviews were mutually corroborating.)

A number of King instructors said that they shunned the information because they "felt the information might bias my judgment of students." The logic underlying this viewpoint was probably best revealed in an interview with the teacher who refused to accept his forms:

> My feeling was that the information they contain is prejudicial. It can bias teachers' expectations and the way they treat students. I think this kind of information should be available [in the office] but not presented to teachers like this... You take a student on the form who shows 40 tardies or 40 unexcused absences, for example.6 Teachers will see that and have a mind set that the student is irresponsible, a problem, whatever. The student could have had some particular problems that caused those absences or tardies, and those problems may be past. But the teacher may lean on the student anyway, the first time he's absent or tardy.

Speaking of Student-At-A-Glance, another interviewee concurred, asserting that "my reaction to that information is that it does prejudice your thinking." As evidence, this teacher went on to describe a television program called "A Class Divided," which had recently been shown locally. In the program, he explained, a teacher had arbitrarily divided her class into two groups based on eye color, then conveyed different expectations for each. In this "experiment," said the teacher, "students performed according to expectations, which just demonstrates the power this kind of thing can have."

Table 5

Teachers' Reasons for Not Using Student and Class Forms (Questionnaire repsonses; n=18)

Which of the following best indicates your reasons for not using each form? (Please check only those that apply.)

	Student-At-A-Glance	Class-At-A-Glance
I have year-long classes and I already knew enough about the students	5	5
I got the forms too late in this semester	1	1
I didn't trust the validity of the student responses	4	2
The information was too old to be useful	0	0
I didn't understand the form	1	1
I felt the information might bias my judgement of students	7	6
Because teaching is an art, information of this sort is not useful	1	0
The form was a good idea, but it didn't have the right information	0	0
No response	3	3
Other (please explain in space below for each form)	5	4

- "I didn't take the time to use the information."
- "Total neglect on my part; received the forms, misplaced everything."
- "I simply forgot. I'm sorry."
- "The need to consult the forms did not arise."
- "My classes [in home economics]are primarily skills classes. This information was not terribly helpful to me."
- "Not all columns on student form are necessary; some seem to be duplicates. Too much information discourages use."

Another group of teachers with year-long classes felt that the forms, distributed in February, came too late to be of much use: "I already knew enough about the students." As a social studies teacher said:

> It would have been more helpful to have them in August, then you could plan for the whole year... It's hard to change methods once you're in the flow of the year.

A science teacher suggested that if he received the at-a-glance information in September:

> Ideally, I could take it and use it to identify kids who might potentially have a problem in class, and I could act on that... You could identify kids who may have to do a little extra to get through.

As it was, he added, "I put them in a drawer, was basically what happened."

A slightly smaller number of teachers asserted that one reason for their non-use of the forms was that they "didn't trust the validity of students' responses" to the survey questionnaire. (No teacher, however, cited this as their only reason for eschewing at-a-glance data.)

Some raised the validity question on the grounds that individual's survey responses weren't consonant with what they had experienced in the classroom. As the science teacher quoted just above put it,

> I recall when I first got this I glanced over it and questioned some of the attitudinal information here. I questioned how accurate that is. Some are listed here as having a negative attitude toward school. I personally haven't picked up on that.

Still others challenged the validity of students' questionnaire responses on methodological or measurement grounds.

Referring to data on Student-At-A-Glance, for example, one faculty member said:

> The academic self-concept -- it seems very variable depending on how the kid interprets it. You might have a 4.0 GPA kid who lists himself as "medium" on the item because, from his point of view, he feels he could be doing a lot better. Homework -- the same thing. How often they do it is variable from class to class. Some kids with the highest grades in my class have negatives. A 2.7 [GPA] kid might say, "Yeh, I usually get it done." A 3.5 kid may feel "I don't do it as regularly as I should." So it depends on the kid's standards

During the May 1 small-group discussion of teachers' reactions, others raised a different methodological problem: the timing of survey administration. As one faculty member noted:

> In May, they've had third quarter marks, they're anticipating finals, they're tired. You might get different answers at different times of the year.

In addition, throughout meetings in which the forms were presented to teachers, some voiced concerns that the survey data on the at-a-glance forms could not be trusted because (as several phrased it) "the kids probably put down whatever they thought we wanted to hear."

Finally there were a group of teachers who appear to have found the information irrelevant and/or simply did not take it into account. Such views are represented in Table 5 by the "other " responses quoted, as well as by the one choice of the statement, "Because teaching is an art, information of this sort is not useful."

Some of the faculty members articulated similar viewpoints in interviews and group meetings. In some instances, the irrelevance of the information on the forms appeared when juxtaposed to the contingencies of particular teaching situations. One teacher, for instance, mentioned that the survey data on attitudes was too general to serve him. "Getting a general view of their interests and feelings thoroughout the day doesn't help me," he said. "I'd want survey information on my particular class." A special education teacher, on the other hand, discovered that it didn't pertain to the issues that arose as she taught students in her Special Studies and Career Planning courses.

> I did look at it. The GPA, the homework, and so forth didn't mean much to me. The special ed kids I have don't do homework. We know their GPA is low... the CTBS is not adequate for these students... So most of the information is irrelevant to my teaching situation.

A science teacher offered the more general comment that "it was somewhat interesting, but I haven't done anything with it. I haven't seen how it would have a directly applicable role in what I'm doing." And see the remarks in Table 5 of a home economics teacher who found the forms "not terribly helpful" in her skills classes.

Several interviewees discounted Class-At-A-Glance data as particularly inapplicable on these same grounds. A typing teacher, for instance, articulated an opinion almost idential with that of the home economics instructor just cited. A physical education teacher explained when asked about the class-level form:

> No, I didn't use it. When I get a class, within a week I know what kinds of methods I'm

> going to use with the class... Class size really determines what methods I'm going to use.

And a social studies teacher provided a variation on this theme:

> If I had, say, a class that wanted a lot of small group work, I'm not sure I could do that, bacause we don't have a lot of materials that lend themselves to that.

Thus, while some faculty members seemed to judge the at-a-glance forms irrelevant or uncompelling on general grounds (perhaps rejecting the general concept of information for instructional decision making), others found the data forms inapplicable in light of their particular teaching situations.

Up to no, this section has described teachers' reactions to the student-by-student information on Student-At-A-Glance and the class-aggregations on Class-At-A-Glance. These two types of data displays received the greater amount of staff attention, both in the Work Group and schoolwide, throughout the UCLA-King High School reality test. Next, discussion turns to the uses of the school-level aggregations produced by the project -- aggregations which received much more limited attention among school personnel.

Use and Non-Use of School-At-A-Glance and Survey Totals

Recall that the Work Group aggregated student data at the school level in two forms: (1) on the student survey instrument itself, where the percent of all students selecting each response was entered on each item; and (2) on a School-At-A-Glance form, where graphs displayed data on several issues deemed worthy of consideration by the entire faculty. Both were distributed to each member of King's professional staff on November 7, 1984.

(See Part I, pages 32 through 37 for description of this meeting.)

School-At-A-Glance. The data displayed on the School-At-A-Glance form (Appendix B) addressed four issues. Two of these were emphasized: (1) the functions of schooling -- students' perceptions of what the school in fact emphasized were compared to what students' wanted the school to emphasize; (2) students' educational aspriations and expectations -- the level of education students wished to attain. In addition, (3) grade point averages for males and females at each grade level, and (4) average number of days absent for males and females at each grade level, were graphed.

The latter data, on grade averages and absences, received virtually no comment at the November 7 meeting or any time thereafter. Tables on the functions of school and students' educational hopes and plans, however, did occasion comment at the November 7 staff meeting.

Some teachers seemed interested in the fact that while the great majority of students perceived the school as emphasizing intellectual development, many students wanted the school to emphasize personal development or vocational training. In all, two-thirds of the students preferred a different goal emphasis than they perceived at their school. This finding seemed especially salient to teachers in the business education and industrial arts areas, who saw the data as calling for greater District and school attention to the vocationally oriented training their departments provided. When the faculty divided into small groups to discuss the information forms, the one which included industrial arts and home economics faculty spent a substantial amount of its time discussing the need to share these School-At-Glance results with the school board and community.

But teachers' interest in the purposes-of-schooling information was exceeded by their concern over the related issue of students' educational expectations. Here, the data showed that 50 percent of the students responding would like to go to a four-year college or university, and 40 percent actually expected to go. Yet District records indicated that only five-to-seven percent of all King's graduating seniors routinely went on to four-year colleges.

This stimulated discussion in each of the small groups about a variety of issues. Some faculty members spoke of school counselors' responsibility to guide students toward "more realistic" goals; others emphasized that counselors should encourage students to take the courses that were prerequisites for their college ambitions. Opinions were exchanged about parents' beliefs and aspirations, and the need to survey parents was a subject discussed in most of the groups. Two of the small group conversations generated the idea that King graduates should be surveyed regularly to determine what they were doing and what King courses they had found valuable.

There was evidence that the issues raised by School-At-A-Glance information raised stayed with at least some King faculty members long after the November 7 meeting. During the last week of March, for instance, one teacher of business subjects opened her interview with the following remarks:

> The one thing all this did, it told our administration that we don't really have a high percentage of college prep students here. I hope it's opened the District's eyes! Here in the Business Department, we have to scrape for kids due to all these college prep requirements. And [as a school] we're not educating them for what they're going to do. Plus, you know, discipline problems tend to rise when students are taking classes they aren't interested in.

Two other teachers among the 18 who were interviewed during March also referred to School-At-A-Glance information on students' educational aspirations.

It is difficult to know whether others at King continued to think about the issues emphasized on School-At-A-Glance or to find them important if they did. No other respondents mentioned them in the March interviews. No one discussed them during the period-by-period, small-group meetings attended by faculty members on May 1. But both the interviews and the small-group conversations were purposively centered by UCLA on faculty reactions to the student- and class-level forms.

After the November 7 faculty meeting in which School-At-A-Glance was initially presented, the form never again became the subject of formal or informal faculty consideration.[7]

Intentions had been to avoid such results. When the Work Group had debated which issues should be included on the form (June 19, 1984), the Principal had stated that the issues of students' educational aspirations and their views on the purposes of schooling "should be dealt with in a whole-school way. They can be the basis for discussion and then actions." He suggested that the initial presentation to the faculty could be followed by in-service sessions. On September 6, 1984, when the Work Group began planning for the November 7 faculty meeting, the need for following up on the meeting was discussed in detail. The Assistant Principal opined that the Principal was "committed to a small, school-renewal group." Later on, when the Principal himself arrived, he affirmed once again that School-At-A-Glance should lead to "in-service and action." When the November meeting finally arrived, some skeptical teachers questioned whether anything would come of the data. Would the administration act on it? One teacher member of the Work Group, and then the Principal, replied that it would. Nevertheless, no further faculty discussion, no in-service sessions, no form of action at all based on School-At-A-Glance ever came to pass. The administrators did not initiate any of this; Work Group members did not press for it; UCLA staff did not suggest it; and the faculty as a whole did not demand it.

By the end of the 1984-85 school year, the School-At-A-Glance form and the information it contained seemed to have affected only some transient consciousness-raising at King High School. As the Principal remarked in the project's last Work Group meeting: "Well, we haven't really taken any action on it. It just kind of reinforced certain directions we're taking -- vocational stuff, the Career Magnet idea. Besides that, it was just general feedback."

The survey summary. Presented to the entire professional staff at the same time as School-At-A-Glance, the survey form with its summary of student responses drew little faculty attention then or thereafter. Of all the questions and comments overheard by the project's participant-observor or reported by small-group leaders at the November 7 meeting, only one remark pertained to the survey summary. This was the comment of a teacher who said, "Well, now we can show evaluators that so many of our students have jobs that we can't assign any more homework."

School-level data from the student survey did serve King High School in two ways, however.

First, the Principal used survey findings to help convince District administrators that hiring a female counselor for King was important. The survey totals showed that both male and female students replied in similar ways to questions about the helpfulness of counselors in planning their school programs and planning for a career. But at the same time, far fewer girls than boys felt they could get help from counselors with "personal problems." It was this finding that the Principal cited in establishing the need for a female counselor.

Second, survey findings supported a grant application submitted to the state by the King High School administrator who championed the school's Career Magnet Program. Had it been successful, the grant would have provided funds for further development of the Career Magnet Schoool idea. The survey was appended to the application and cited in the section of the proposal headed "Needs Assessment Process -- Results/Validity of Proposal." Therein, it helped to justify the need for specialized, vocationally oriented programs within King's comprehensive high school cirriculum.

Ethical Issues: Confidentiality of the Information; the Self-Fulfilling Prophecy

In questionnaires and in interviews, King teachers were asked about abuses of the information, negative consequences of having it, and similar concerns. Two issues routinely surfaced in their replies. They expressed concern that the information, especially that on the Student-At-A-Glance form, might influence teachers' expectations of students in negative ways and so negatively affect students' performance. In addition, they were concerned that the information forms might be seen by students, violating the promised confidentiality of each individual's survey responses.

There was no evidence that any of the forms ever fell into students' hands. Teachers were encouraged to keep them secure, and the interview accounts and anecdotal remarks of faculty members indicated that they routinely did so. Interview respondents -- including the Principal, Assistant Principal, and a counselor -- reported that they had heard of no problems of this kind. Thus, teachers' concerns only served to demonstrate the importance they placed on maintaining the confidentiality of the information that the forms provided.

There is evidence to suggest, however, that teachers were well-advised to be concerned about the potential of the data to produce "self-fulfilling prophecy" effects. The section of this report on uses of Student-At-A-Glance has already described that some teachers used that information at the beginning of the semester to "flag" students who had large numbers of absences, to identify students who seemed incapable of doing well in particular courses, to "explain" why students were performing poorly (without necessarily taking action to help them improve) and to advise students into lower-track classes. Such uses of Student-At-A-Glance can be appropriate uses of information, but they can also be the basis for invidious distinctions that limit students' learning opportunities. As Sirotnik and Burstein (1985, p. 46) have pointed out:

> As teachers went about their typical pattern of exploring the information on Student-At-A-Glance -- comparing GPA, test scores, and educational expectations -- no explicit instructional concern was evidenced for the many students who were low on all three variables.8 This is not to say that teachers were not, in fact, concerned about these students and responsive to their needs in classes; we did not observe these teachers at work in classrooms. Our inferences are based strictly upon teachers interacting with information.

Teachers themselves were conscious of their tendency to form early judgments of students that could influence their teaching. Indeed, some gave this very reason for not using the forms. But even those who used the forms expressed concern. As one teacher explained:

> To a degree, this has slanted my perceptions. I'll say, like "this kid has real ability but is a lazy flake," or "this kid with a high GPA and low scores is working realy hard." And sometimes it matches what I see in class. But I don't think it's influencing their grades or anything.

Another cited the grading issue as the crux of the problem:

> It might influence my grading. You know, you see a 4.0 GPA and you think "Oh my gosh, I'll be the only one giving them a B." And maybe, then, you're more inclined to give the higher grade.

As the 1984-95 school year, and with it the reality test drew to a close, the issue of prejudicial uses of the information had simply been raised at King high School. No consensus had formed on the seriousness of the issue; no organizational solutions had been proposed. Each teacher responded to it as he or she saw fit. The UCLA project directors shared the concern of teachers, and their viewpoints on the matter and its implications for school information systems have been presented elswehere (Sirotnik, 1984; Sirotnik & Burstein, 1985, pp. 45-47).

The concerns discussed above were the only issues of professional ethics in the handling and use of information that arose consistently among King High school educators during the reality test. Others' reactions to issues of privacy and information confidentiality are briefly summarized below to round out this discussion.

Neither school nor District administrators seemed to see privacy or the confidentiality of information as matters for special concern. Both quickly accepted Work Group plans to identify questionnaire responses with individual students, to link questionnaire responses with other student-level information already in District files, and to provide teachers with student-by-student information on the Student-At-A-Glance sheet. The non-salience of privacy issues for King and Valley Unified administrators can probably be traced to precedent. That is, the District and school had already decided to make a great deal of information on individual students accessible to teachers upon request through the CASA, or Computerized Accountability for Student Achievement, system. (See Part I, pp. 7-10.) In particular, the Activities Referal Form (Exhibit #2, p. 21), which was available to any professional staff member, included such confidential information as the student's referrals for disciplinary and other reasons, family arrangements in the student's residence, and parents' employment status, as well as test scores, class rank, grade point average, etc. In the context of previous decisions to provide teachers with this information, the absence of administrative discussions of privacy and confidentiality with regard to survey data seems understandable.

Students seem to have objected only transiently, in one or two instances, to the handling of information about them. These objections may have resulted from some miscommunication about the anticipated uses of the data at the time of survey administration. When prototype at-a-glance forms were presented at a meeting of the King High School group charged with planning for school improvement under a state funded program, a student member of the planning council objected that she had been told that "the data wouldn't be used in this way, that teachers wouldn't get my individual answers." Later on, a teacher of mathematics mentioned that he had heard similar remarks from students.

As the Work Group reviewed the situation, it appeared possible that a few teachers had erroneously conveyed these impressions to the students in their particular classroom as they filled out the questionnaire. UCLA staff had emphasized repeatedly, in giving instructions for administration of the instrument, that the data would be identified with individual students; they pointed out that students' identification numbers were already on the answer forms so that survey responses could be linked with other student-level data presently in District files. They added, however, that teachers should stress that "confidentiality" of students' answers would be maintained through careful professional handling of the information. It appeared in retrospect, however, that some teachers may have confused "confidentiality" with anonymity and gone on to promise students that teachers would not be able to identify survey responses with individual students.

The projects' participant-observer made a point of examining whether the student objections raised in the school-improvement meeting mentioned earlier were widespread, or whether events at the meeting had further consequences. Evidence indicated that the answer was "no" in both cases. The issue was dropped after Work Group members who were present at the school-improvement meeting explained project procedures, the reasons for identifying responses with individual students, and the intended uses of the at-a-glance forms. Only the math teacher cited earlier reported similar student objections. And in all the meetings that were held with teachers following survey administration, only one faculty member mentioned that he had heard students say that they would not answer questions explicitly because they did not want their views to be known. Furthermore, at no time during the project was there any suggestion that parents objected to the handling of the student data.

Attitudes Toward the Project

Attitudes toward the project as a whole, and toward the basic concept the reality test represented, varied widely among personnel at King High School and among those in the Valley School District who had closest contact with it. The latter found many positive things to say about the project efforts, although District support for reality test activities was ultimately withdrawn. At the school, the Principal and other members of the Work Group remained ardent supporters throughout the eighteen-month trial and expressed commitment to continuing the innovations begun during that time. Other faculty members voiced a wider range of views, some of them quite negative.

Viewpoints at the District Level

An earlier section of this report (pp. 41 to 43) has already recounted the cirumstances surrounding the termination of District support for the project at the end of the 1984-85 school year. Some District administrators' judgments of the project were quoted in the context of that discussion. These, however, can be construed as situation-specific: in the course of closing out a working relationship, it is routine procedure to say something nice about the benefits that relationship provided. It is worthwhile, therefore, to go back in time and review the reactions of District staff in another, earlier context.

During a meeting on September 27, 1984 UCLA project participants met with the Assistant Superintendent who acted as the District's primary contact with the King High effort and, at the same time, met with the director of the District's data processing unit. Their reactions, as they reviewed prototype at-a-glance forms and the summary of student survey data, were quite positive. The Assistant Superintendent expressed enthusiasm with the forms and soon became involved in an animated discussion of survey findings. He also suggested other, school-level data that would be helpful to the District and to school counselors. When the head of District data processing suggested that some of this information was already available, the Assistant Superintendent replied, "I know you have it, but the problem is to get it into a form like this, a form that's easy to read!" He then went on enthusiastically to suggest various ways in which project designs and concepts could be adopted by the District for its information needs.

The District's data processing personnel were equally affirmative in their reactions to the at-a-glance forms and information they contained. The director of the data processing unit, who often worried aloud about his need to keep information and to produce information and reports "that nobody really wants," commented, "The thing you [UCLA] guys did was go out and find what people wanted. That's what's important... This is, this is a pretty nice report!" He added that the junior-high-school counselors "would like this" and initiated a discussion of the technical prerequisites for producing the at-a-glance reports on a routine basis.

These remarks reflect an affirmative judgment of the project's main products. Furthermore, they suggest that the general concept that the at-a-glance forms represented -- appropriately aggregated and formatted information for instructional decision making -- was appealing to District personnel. They viewed the prototypes as having broader applicability in Valley Unified schools.

Why, then, did District administrators withdraw support for the reality test when they did? Why did they not provide the relatively modest sums that would have enabled King High staff to continue development of the information system, with UCLA assistance, during the first semester of the 1985-86 school year? Answers to these questions must be speculative, but there are several alternatives. Perhaps, as the Assistant Superintendent later argued, funds were simply too limited. Perhaps District administrators felt that the costs of continuing support outweighed potential benefits. Perhaps they believed that they had obtained a good "product" for their money and that investment in further development would be superfluous. Or perhaps all of these factors came into play simultaneously in the District's decision. If so, the decision regarding the reality test may have been part of a broader pattern. Several people with whom UCLA staff members spoke during the course of the project shared the view that, historically, the District administration had a tendency to allow individual schools to pursue whatever projects they wished, but to drop those projects once special, extramural funds were gone. The District's administrators, these knowledgeable informants said, had no enduring commitment to innovation of any kind. Whatever the case, the only viewpoints expressed on the substance of the project by District-level staff were positive.

Further evidence of the District's positive evaluation of the information system effort at King emerged in September of 1985 when it became apparent that the District was supporting creation of the Students-At-A-Glance and Class-At-A-Glance forms for each class in the Valley Unified School District's other high school. (These would include only extant District data, however, since no student survey was administered or planned for this school.)

The Principal's Views

At the last meeting of the Work Group (May 8, 1985), King High School's Principal listened to UCLA staff report on questionnaire and interview reactions to the at-a-glance forms, then gave his overall assessment:

> Well, I'm pleased with the results, I'm pleased with the use. Any time you can get that many teachers, especially on this staff, to go along with something, it's a success.

A few weeks earlier, in the context of a private interview, the Principal had given a more detailed evaluation of the project's efforts. He observed that "the reception's been very good," largely because "we had the faculty group [Work Group] involved in the development and we ran it by the faculty first. Plus, it serves an immediate need for the teacher." Moving on to affirm his personal view of the project's value, the Principal commented:

> As far as down the road, I'd like to see it [production of at-a-glance forms] become institutionalized. The drawback is that it depends on the survey, and that could be a problem if the district doesn't support it. But there's lots of information in the cumulative file and in the District files that the teachers could go ahead and use [even if

> student survey data could no longer be collected].

At this point, the Principal mentioned parenthetically that the chief adminstrator at Valley Unified's other senior high school "has been interested in doing something with this, so I sent him information on it. I'd like to see it utilized throughout the District."

King's Principal believed that simply presenting the at-a-glance forms to teachers, even if they did not make substantial use of them, had benefits. "It's important for teachers to look at kids as individuals," he explained, "especially at the secondary level. I think you find elementary teachers tend to do that, but secondary teachers orient more toward the subject matter. I think this [the at-a-glance information] encourages them to really take a look at individual students as learners."

The principal's views of the reality test, however, were not uniformally affirmative. He felt that things would, in some unspecified way, have "gone better if I had been here five years before we actually started this." He had had to spend too much time on other matters, he indicated, to devote the time he would have liked to devote to the project. "Trying to just get people [i.e., staff] to follow rules, to do what they're supposed to do, has been a major goal, and that's been time consuming."

Furthermore, looking back on the course of the project, the Principal seemed to take a circumspect view of the value of the School-At-A-Glance data and the way school-level information had been handled. Asked if he thought there was anything that project participants might have done differently, he replied:

> Coming up with an action plan, thinking about once we get these [school-level] results, what do we do with them? Is this information we can actually use? You have to ask whether this information can turn into long-term planning. Can you really act on it? For example, the kids say they want more personal or vocational education. The CMS [Career Magnet School Program] deals with more career-type thinking, but the faculty isn't even supporting that. So, maybe we needed to give more thought to what's really possible and how to go about using the information, or whether the information was the right information.

Like most other school administrators today, the Principal of King High School had had little experience or training in systematically using broad-based information for schoolwide planning and renewal. He seemed to sense that something was missing that might have facilitated such use -- an "action plan," more careful considerations of the links between viable action alternatives and the types of data collected. He certainly seemed to believe that school-level data could have been more fully utilized. At the same time, however, he could readily see the value of student-level and class-level at-a-glance forms for teachers. He was pleased with the extent of their use, and he hoped the forms would become "institutionalized" at King High and other Valley Unified secondary schools.

Attitudes of the Work Group Faculty Members

Teachers that served on the project's Work Group were enthusiastic supporters throughout. As described in Part I, they repeatedly displayed their sense of ownership in the project's efforts: eliciting ideas from colleagues about useful information, volunteering time to review drafts of student and teacher questionnaires, and assuming responsibility for presenting prototypes of the at-a-glance forms to the entire school staff.

The excited, initial reactions of Work Group teachers to those prototypes were described earlier in the chronology of project events. (See pages 29 & 30.) Furthermore, as they introduced the Student-At-A-Glance and Class-At-A-Glance forms to their collegues, they waxed enthusiastic about their advantages. "I want to point out," said the foreign language teacher who played a key role in the Work Group, "that we had choices about what to include here [on Class-At-A-Glance]. It's like going into a candy store! We selected these because they seemed useful, but that's not to say they can't be changed. There's a lot more out there!" The health/science teacher, always one of the more cautious, circumspect members of the Work Group, added, "Another thing: these are only student responses. We're planning parent and teacher surveys -- and if we put all that together, we'll have a really complete picture of what's going on!" Later on, when actual at-a-glance forms were delivered to every teacher, Work Group faculty were among those who made rich and varied use of the information they displayed.

As the reality test drew to a close in May of 1985, Work Group teachers continued to demonstrate their positive reactions and commitments to the information-system idea. They readily assumed responsibility for various tasks to be done in order to assure its continued development at King High School.

The Faculty's Mixed Reactions

The King faculty at large, of course, did not have the same intensive, continuing involvement with the project that Work Group members did. It is understandable, therefore, that their attitudes toward project efforts were more diverse.

Some of the more positive faculty reactions have already been quoted in descriptions of how the at-a-glance forms were used. There was the English teacher who portrayed himself as "originally cynical," but who concluded his interview with excitement: "I think you're onto something here! They [the forms] were very valuable." There was another English teacher who noted on a questionnaire that "The students have greatly enjoyed the class as a result of changes I've made based solely on the results of this survey... I hope this can be continued. I have found the information extremely helpful!" A business teacher concurred: "I think it's great; I hope we get them again next year." Another found the concept "SUPER," and several urged that the project be broadened, e.g., to provide similar forms to counselors, to include even more information, etc.

Many other teachers, perhaps the majority overall, assumed a more moderate stance toward the project's concept and products. Among these were the faculty members who judged the at-a-glance forms "interesting" and "well worth the trouble," but who did not use the forms for other than general informational purposes. Their comments lacked the intense and uncategorical enthusiasm of the teachers described above. Often, they remarked on the advantages of some data and the uselessness of other information. The assessments of one mathematics teacher were illustrative of the latter type. She observed that Student-At-A-Glance information was useful

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in several ways, found that class-level data on "attitude toward the subject" helped her understand between-class differences, but then added, holding up a Class-At-A-Glance form; "Other than that, I didn't find this helpful at all. To be very frank, I thought this information on their likes and dislikes was pretty crappy. There's nothing here I can use. It doesn't deal with the options I have." Teachers such as these found merit in the underlying idea of information to inform instruction, although they sometimes criticized the details of the project's forms.

Finally, at the negative end of the scale were some teachers who found nothing of value among the project's efforts. One science instructor, for instance, dismissed the at-a-glance forms as "not practical for my uses," then went on to add, "This is pie in the sky idealism and not practical in the real world of mass education." Another teacher asserted that he did "absolutely nothing" with the forms and demanded to know, "How much does this cost?!" Still another, commenting in a meeting held during her free period, observed: "I didn't look at it; I just put it away. There's not enough time to use this. There's too much that we have to do already, like right now, for instance." And one of the latter's departmental colleagues offered objections based on different grounds:

> I looked at it for my AP [Advanced Placement] class, the highest English class in the department. It showed they didn't like English, and it made me so angry I had to put it away, just forget about it... I think the single most important thing in education today is raising the morale of the classroom teacher. All we've gotten since the beginning of the year -- in test scores, memos, what have you -- is information that tells us that

> we're doing things wrong. This is part of that. It [the at-a-glance information] just tends to reinforce that what you're doing in the classroom is wrong.

Most teachers with such negative views eventually articulated the judgment that one expressed as follows: "I don't know what this is going to do. I don't see what it gives me."

Others on the King High School staff resented the time the project took and the priority it was given among issues facing the school:

> -- I feel committeed, meetinged, and project-ed to death. I think your project has merit, but I wasn't receptive.
>
> -- Well, my first reaction when I saw these was, here the Principal allocated a minimum day to the UCLA presentation when we should be addressing other, more pressing problems we have at this time, communication problems and what have you. I'm afraid this colored my view of the forms. I was angry that our time was being spent in this way... You know, given this staff's disaffection with the administration and all the other issues we're facing right now, it might be best if the study were done in another school.
>
> -- I have a feeling that the faculty in general questions the worth of being involved in the UCLA project. Frankly, well, I don't know how to put it exactly. There's some feeling that someone had a grant and was trying to figure out how to spend it or someone was trying to do their doctoral dissertation.

In summary, some staff members' enthusiasm for the project and the information system idea were matched by others' belief that the whole thing was a waste of teacher's scarce time. In the middle of the opinion spectrum were a large number of teachers with neutral or mixed attitudes toward the reality test's efforts at King High School.

Prospects for Sustaining the Innovation

Under the aegis of the Center for the Study of Evaluation with support from the National Institute of Education, the UCLA project established the foundation of a comprehensive, school-based, information system at King High School. It left the school with data collection instruments: a piloted and revised student survey, a teacher questionnaire, and the rudimentary draft of a parent attitude instrument. It left the Valley Unified School District with software that enabled questionnaire data to be integrated with other District computerized information files. If left two years' worth of student attitude data and models of student-, class-, and school-level information displays. And it left a cadre of teachers and administrators who had become tutored and experienced in thinking about information for instructional decision making, together with a model of the information-system-development process. What are the prospects that this innovation will be continued? What is the likelihood that an on-going information system will be constructed on this foundation?

As the 1984-85 school year ended, it seemed highly likely that new, updated Student-At-A-Glance and Class-At-A-Glance forms (based on spring, 1985 data) would be distributed to teachers in the following September. The Principal and Work Group faculty members seemed committed to achieving this; the latter had assumed responsibility for seeing that it happened.

The fate of the teacher survey, as well as development and administration of a parent survey, seemed more problematic. Work Group members had always seen teacher and parent questionnaires as secondary in importance to information on students. The Principal had envisioned the teacher survey as "potentially useful" in goal-setting during the final months of the school year. Using the survey for such purposes became impossible when the teacher survey was postponed until the fall of 1985 and when the Principal set about meeting with departmental groups to establish next year's goals. Furthermore, the Principal expressed no strong interest in gathering parent data and commented, "I don't know if the District would be in favor of it. The District has never done much in the past to encourage parent involvement. Six secondary schools don't even have PTA's. It's just astounding!" Teachers' interest in eliciting parent attitudes varied, but there was an ambient feeling that surveying parents would be a "logistical nightmare," as one phrased it. All in all, a survey of teachers seemed much more likely to be done than a parent survey, but there was limited enthusiasm even for that; perhaps not enough given the staff time and effort it would require.

Expansion and development of the information system in general seemed unlikely, especially given a continued absense of support at the District level. There would be no release time or extra compensation for teachers to meet and consider what new information might be useful, to revise surveys or information displays, to oversee data collection and reporting through its various steps. Prospects of the District supporting even such minor expenses as duplicating questionnaires and printing report forms seemed slim. (Several teachers reported that they had been told in the spring of 1985 that there was no longer money for duplicating reading materials and tests.) Furthermore, the Principal (as described above) was ambivalent about the value of school-level data, even after the stimulus provided by the UCLA-prepared School-At-A-Glance prototype. Without settings for use beyond the individual teacher in his/her self-contained classroom and without the Principal's commitment, there seemed little to motivate further development of the system within King High School.

In the end, enthusiasm and commitment seemed to center on the Student-At-A-Glance and (to a lesser extent) Class-At-A-Glance displays. If any vestiges of the project remain at King High School beyond 1985-86, they are most likely to be manifest in some version of these forms.

Part II has described the various responses of King High School (and some District personnel) to the concept, processes, and products of the information-system reality test. Part III turns to an interpretive analysis of these results and to some of the principal learnings generated by the project.

PART III

ANALYSIS AND LESSONS

The UCLA project tested the idea of comprehensive, school-based, information systems for instructional decision making in the real world setting of a typical, suburban senior high school. In the course of this trial, the information-system idea came to interact with a number of contextual factors in that setting. By exploring these interactions, one can learn some important lessons, probably generic lessons, about the development and implementation of information systems in high schools. This part of the report examines those interactions and the learnings they provide. More specifically it interprets how three types of factors came to impinge on the shape and results of the project. These three factors are (1) the social organization of the school, (2) teachers' thinking and reasoning about information, and (3) leadership and support. As each is discussed, some important, general points applicable to the development of information systems in secondary schools are highlighted.

The Social Organization of the School

The contemporary American comprehensive high school is organizationally diffuse and fragmented. Staff members are in many ways isolated from one another by limits of space and time, as well as by the structure of daily routines. Teachers are overburdened. They typically meet upwards of 150 students with diverse learning needs in several different courses each day. To these regular instructional responsibilities, including planning for teaching and grading students' work, are added a wide variety of activities: taking part in special co-curricular programs, addressing the special problems presented by individual students and parents, and many others. There is little time for reflection or thoughtful conversation with peers. Remuneration in financial terms, in terms of societal appreciation and respect, and in terms of organizational promotion is limited. The compromises teachers must make in their educational values and instructional aspirations are many. These and other unfelicitous conditions which characterize American high schools today have been documented with consistency in studies by Adler (1982), Boyer (1983), Sizer(1984), and others.

The reality test at King High School, where such conditions were obvious, demonstrates how they come to influence the development and implementation of comprehensive information systems for instructional decision making and school renewal. Since these conditions function to inhibit rather than facilitate such efforts, any school which strives to build this kind of information system must take them into account.

Scarcity of Time and Limited Communication

Teachers at King High School were emphatic that they had little free time. From their point of view the entire day -- from 8:00 a.m. when they arrived on campus through after-school meetings and on into the evenings when they reviewed student work -- was consumed with professional responsibilities. Seven or eight minutes were allotted between classes, but teachers often spent that time speaking with students individually or getting ready for the next class. "Free," or preparation, periods afforded time to look over plans, gather materials, ditto handouts, or grade papers. If parents needed to be called or counselors visited, it had to be done then. Observation indicated that few teachers used their preparation periods merely to "hang out" in the teachers' lounge.

Thirty-five minutes were set aside for lunch: time enough for eating and some casual conversation, but little else.

Teachers persistently referred to the scaricity of time. "I barely have time to go to the bathroom," one Work Group faculty member commented when asked to discuss information needs and wishes with departmental colleagues. Others nodded in agreement. "You know how busy we all are here," remarked another in explaining why she was unable to discuss her students' needs with a colleague. Still others cited time limitations as a reason for not addresing the diverse needs of their students:

> It's the pits. There's 14 teachers in our department and equipment for about two. You have to steal it, hustle it, stay late to set up. Then you have to get here early to make sure no one took it out of your room. If they did, the day's blown; you can't do the experiment or demonstration you planned. So you don't have time to worry about whether each kid's getting it. Maybe that's a bad attitude, but it's true. You just don't.

Given the social organization of daily time in the high school environment, teachers had little opportunity for substantive communication with one another during the school day. When 18 teachers were interviewed about the at-a-glance forms, one of the issues they were asked to address was how others on the staff were responding to the forms. Were their colleagues generally favorable? Had there been breaches of confidentiality or abuses of the information? The routine response to such questions was "I don't know; I rarely have a chance to talk to others about what they are doing or thinking." Further evidence of limited intra-staff communication appeared when a group of disenchanted teachers met to create a "faculty forum." Among the issues discussed at the forum's first, lunchtime meeting, was "communication with the Principal and communication among teachers." Teachers felt that there simply wasn't enough of it. Indeed, the forum itself was conceived as a locus of communication for the professional staff.

These factors, scarcity of staff time and limited opportunity for intra-staff communication, interacted with several others to influence the reality test in a number of ways. These are more appropriately discussed a bit further on.

Multiple Agendas in the School

The UCLA information-system reality test was not the only special project at King High School during the 1984-85 school year. It competed for finite staff time with a number of projects.

Some of these projects were generated by state and District mandates. The Principal outlined a few of them:

> We kind of got caught up in a whole variety of things this year. There were the SB 813 curriculum changes [Senate Bill 813, a comprehensive California school reform measure]. Then, the District has come out with ten to twelve goals that we're expected to fulfill, based on the effective schools literature. On top of that the staff had the clinical teaching thing [in-service training based on the principles of educator Madeline Hunter].

The Principal went on to add that, especially in the face of such requirements, "the hardest part here is just to get people to think as a total staff."

In addition to these efforts, a number of programs that the school had begun earlier continued to consume administrators' and faculty members' energies through the 1984-85 school year. The Career Magnet School Program was one of these. The groups of faculty charged with responsibility for these vocationally oriented curricular programs had been relatively inactive. Now, they were being urged to organize activities for students. Thus, for example, a group of foreign language teachers were busily preparing to take students in their career magnet on a day-long visit to the Pacific Rim Exhibition being held in a city some two hours' drive from the school.

Meanwhile, some teachers had organized a canvass of students in an effort to demonstrate that the Learning Resource Center was a superfulous expense and should no longer be supported by state school-improvement funds. For several weeks, the learning resource specialists' job hung in the balance as the school improvement planning council debated its budget.

In the second semester, yet another program was launched: the Adopt-A-School Program, aimed at stimulating community interest in and support for the school. One outcome of this effort was Career Day. Held in March, this brought representatives of various vocations and the military services to the campus to outline career opportunities in their fields and to explain the educational prerequisites for these careers.

Amidst these new and continuing endeavors, various crises arose and demanded immediate, albeit temporary, attention. In the winter, for instance, a student with a hair style considered by the Principal to be "disruptive" was asked to leave school. The student contacted the local media, and the Principal soon found himself explaining the matter on the evening news. Local papers also sent reporters to cover the story. Later on, teachers formed the faculty forum and presented school administrators with a list of issues for their immediate response.

Taken collectively, the presence of all these agendas, the already limited staff time, and the lack of opportunities for staff communication had a profound affect on the information-system reality test.

First, there were no informal communicational networks or channels that could carry word about project activities in a steady, reliable way from Work Group members to others in the school. When teachers did have opportunities for a brief chat, and when they chose at such moments to give school affairs conversational attention, a variety of topics competed. Casual observations on campus, in the teachers' lunchroom, and in some departmental offices suggested that, routinely, current events and crises won out. In short, there were virtually no opportunities for most of the faculty to follow the course of the project as it progressed, to ask questions about it, to be even indirectly a part of it through feedback to Work Group members. What is more, the very presence of the project was easily forgotten amidst the welter of unfolding events.

Second, this meant that the only contact most King High School teachers had with the project prior to receipt of the forms was at times which cut into their already burgeoning schedules. There were three such occasions: (1) the period-by-period meetings on May 23, 1984, the day before administration of the student survey; (2) some five-and-a-half months later, on November 7, 1984, during the whole-faculty meeting at which the at-a-glance prototypes were introduced and discussed; and (3) three-and-a-half months after that, on February 20, 1985, when the at-a-glance forms for their second semester classes were finally distributed. This sort of intermittent involvement was not sufficient to provide a sense of real involvement or participation in project developments. It was enough, however, especially when added to similar meetings for other special projects, for some teachers to experience as an imposition on their valuable time. Evidence that it was has been presented through quotations in previous sections, but one teacher summarized a common feeling well when he said, "It's not just you, but you're one of 900 separate projects with demands."

Given District strictures, it was impossible for the Work Group to conduct these meetings in time away from classes. Releasing the entire faculty from teaching responsibilities was out of the question. (And in any case, many teachers may well have felt that the precious release time should have been spent on other matters they deemed more urgent. Thus, nominal faculty involvement was gained at the cost of teachers' preparation periods and extended faculty meeting time (with attendant abbreviations of the teaching day). Conducting project meetings during these times, even if it did not generate resentment, probably did not facilitate the most positive environment for discussion of information and its uses.

Third, the duration and infrequency of project meetings with the entire staff led to a less-than-desirable kind of participation structure. True discussion is predicated on an informed understanding of facts and issues. Brief, intermittent contact with the project allowed for a minimum of that. As a result, the sessions with the entire school staff took on a tell-question-and-ventilate structure. UCLA participants did the telling, on one occasion (the November 7, 1984 faculty meeting) with the assistance of Work Group teachers. In each instance, they reiterated the history and goals of the project, then informed the staff about what was about to happen now and next. When they turned the floor over to the teachers, the teachers posed a few questions, and then often took the occasion as an opportunity to ventilate their frustrations. Some of these frustrations pertained to immediate reality-test events; many were, however, quite general. The venting of general frustrations was quite reasonable in context. After all, in an environment where communication was restricted, especially with District and school administrators, here was a forum with collegial support and someone willing to listen. Furthermore, that "someone," UCLA staff, appeared to have the support of administrators and so could be construed as affiliated with and/or conduits to those administrators.

This is not to gainsay the value of these meetings. They were important symbolically, communicating the project's genuine interest in faculty viewpoints. They provided important data for the feasibility study. Some productive exchanges did occur. But the meetings were not consistently characterized by the kind of thoughtful discussion that might have occurred under other circumstances.

The upshot of the dynamics described here -- dynamics rooted in scarcity of time, limited intra-staff communication, and multiple school agendas -- was that few King teachers beyond the Work Group had a meaningful opportunity to become involved with and invested in the information system's development and implementation. Under such circumstances, it is not surprising that half or more of the faculty merely glanced at the forms then filed them away. On the contrary, the attention the forms did receive from teachers is especially worthy of note.

The Distribution of Power and Division of Roles

Two more features of King High School's social organization interacted with those of available time, communication, and multiple agendas, to influence the processes and outcomes of the reality test. These were the distribution of power and the division of roles in the school.

Power and authority at King were vested in the hands of two or three top adminstrators, including of course the Principal. A small number of teachers gained an important say in some types of decisions by assuming responsibilities in, and doing a great deal of the work in support of, specific school projects. The school, however, maintained no regular organizational structures that brought staff members together and empowered them to discuss and resolve common concerns.

As in most high schools in the United States, King was organized into various academic departments. Department meetings, however, took place but infrequently, and they apparently did not constitute settings for dialogue and conjoint decision making. When one UCLA participant suggested that some types of survey data might help departments plan their curricular emphases, faculty in the Work Group rejected the notion immediately. One teacher explained that "everyone sort of sidesteps disagreements over teaching methods and philosophy and things" during department meetings. Another added that departments meet rarely and then usually deal only with what courses individual members of the department want to teach, what books they want to order, and similar routine tasks. In another Work Group session, teachers were asked whether "your departments" could use information on students' perceptions of instructional practices. After some initial confusion about what UCLA staff had in mind (several King participants asked in apparent disbelief, "Why?" and "For what?!"), one teacher answered, "No, this would be seen as threatening." The matter rested there.

King, as noted in passing earlier, participated in the California School Improvement Program (SIP). SIP guidelines require schools to assemble a school site council which includes the principal and elected representatives of various constituencies: teachers, other staff (e.g., counselors, non-certified personnel), parents and other community members, and students. According to SIP provisions, the site council has responsibility for assessing schoolwide needs, developing improvement objectives, planning activities to meet them, and evaluating the results of these efforts. SIP schools are encouraged to engage in comprehensive planning and to use the planning process as a catalyst to or motivator for dialogue and involvement. Some schools do so, but many treat the planning process merely as a hurdle that must be jumped in order to procure additional state monies (Dorr-Bremme, et al., 1979). King High School seemed to fall in the latter category. Several discussions of King's SIP program during Work Group sessions suggested that a few administrative leaders have primary responsibility for SIP plans. Thus, the SIP site council did not appear to provide a forum for substantial teacher involvement in schoolwide planning and decision making. Similarly, other King High School instruction-related programs (the Career Magnet Schools and Learning Resource Center programs, for instance) appear to be the artifacts and concerns of a few administrators and a very small number of over-committed teachers.

The absence of structures to address group concerns at an intermediate level of school organization at once reflected and contributed to the centralization of power and authority in the school's main office. At the time, it both contributed to and reflected the limited communication among staff.

More generally, role boundaries were sharply defined at King High School. Administrators, as noted, set policy, concerned themselves with schoolwide and program-related issues, and make the key decisions. Teachers taught as they saw fit. Counselors counseled and advised students. As the principal put it, there was very little evidence of "thinking as a whole staff." Indeed, in their everyday interaction, the whole staff routinely worked at maintaining sharp distinctions among their various roles.

Work Group teachers, for example, routinely deferred to administrators on a wide variety of decisions in which they might well have expressed their views. Whether to gather information on the school's "physical plant" was, from their point of view, up to the administration. Should a second School-At-A-Glance report be produced in 1985-86? That, teachers also argued, was the Principal's choice. (For other examples, see Dorr-Bremme, 1984, pp. 23-24.) The Principal, in turn, spoke of how difficult and time consuming it was to get teachers to "follow the rules" and do what "they are supposed to do." At the November faculty meeting to discuss at-a-glance prototypes, one teacher posed the question, "If we're being asked to act on this information [indicating Students-At-A-Glance], can we assume that the administration will act on this [holding up School-At-A-Glance]?" The Principal assured the questioner and faculty at large that the administration planned to do so.

Along the same lines, teachers on the whole expected counselors to do the counseling, the handling of special student problems, the academic and vocational advisement. (There were, however, some notable acceptions to this viewpoint among the classroom staff. These will be obvious in the next section.) As teachers discussed the at-a-glance prototypes for the first time in November, 1984, many blamed the counselors for the fact that so few students who expressed interest in going to four-year colleges actually went. In addition, when teachers expressed their reactions to the forms in May, many shared the view of one teacher who said:

> I see this as a counseling tool. It's of no practicality to me and I didn't use it at all. I can't control what they come into my class with, and I don't have time or energy to deal with all their little problems. That's the counselors' job.

Several teachers wrote on their questionnaires such remarks as "The counselors should get the forms too" and "Give these to the counselors." And throughout the project, teachers complained that counselors simply did not "screen" and schedule students appropriately, often adding that it should not be their (their teachers') responsibility to figure out who was qualified and who was not qualified to be enrolled in particular courses. On the rare occasions when counselors' voices were heard in project meetings at King, they never rejected sole responsibility for the tasks that the faculty relegated to them. They only mentioned that teachers didn't understand how the scheduling process worked or didn't appreciate how little they (the counselors) could do for each individual when they faced a case load of 400 to 500 students.

All of this helps to explain the patterns of information use that emerged during the reality test at King. Rather than "thinking as a whole staff," educators at King High School assigned responsibility for different types of issues and problems to "specialists" on the staff. Organizational arrangements supported the division of tasks. Thus, teachers who used Students-At-A-Glance did so within the confines of their own classrooms. There was no occasion for them to bring their student-specific and class-specific information to bear on departmental or program-related issues; they lacked both organizational arrangements and authority to address such issues. For similar reasons, School-At-A-Glance was quickly put aside by the classroom staff. The schoolwide issues it raised were the school administration's responsibility. Teachers were not empowered to help resolve them; organizational structures to facilitate their input did not exist. As one teacher expressed it:

> We gather a great deal of useless information here already... As long as the teacher is powerless to act on the information about students, then it all just disappears in quicksand. It's more frustrating than anything else if you can't do anything with it.

No one at King militated for a change in these arrangements. No one on the faculty, in the administration, or in the counseling offices championed the viewpoint that the entire school staff should pull together to address concerns that in fact involved everyone in the school. The Principal did voice this notion to UCLA researchers, but his actions did little to demonstrate it during the project's on-site time. The faculty did organize a forum to address grievances, but the redistribution of power and authority was not among their goals.

Ironically, the division of power and sharp role distinctions evident at King also made it very difficult for the school administration to reflect or act on the school-level data, as the faculty would have them do. With nearly total responsibility for a wide variety of special programs and mandates as well as routine operations, administrators simply did not have the luxury of responding to issues that had no deadline attached to them. Furthermore, it appears that their concepts of teachers' and administrators' roles precluded their taking steps to delegate responsibility to faculty for following up on the issues raised by School-At-A-Glance and the student survey as a whole.

The District Context: Mistrust and Alienation in King High School

The immediately preceding sections have focused on social organizational factors within the high school site that came to bear upon the information system reality test. But project events at King were also influenced by circumstances beyond the school. The stance of the District administration, as interpreted by members of King's professional staff, tended to undermine enthusiasm for any innovation. The account below demonstrates this, and underscores the importance of attending to features of the district context in developing school-based information systems.

A good many teachers came to project events with considerable suspicion of any activity supported by the District administration. From their perspective, District administrators were indifferent to their needs; "the system," as embodied in the District bureaucracy, simply did not work well in their behalf, did not facilitate their routine work, did not take their interests into account.

During the 1982-83 school year, the Valley Unified School District felt impelled to reduce the number of faculty it employed districtwide. Even some tenured teachers had to be let go. Teachers found the District's "riffing" (or reduction-in-force) procedures highly unfair. Within-district transfers that accompanied the staff reduction, they maintained, resulted in teacher assignments "that make no logical sense."

Part of the "riffing" process involved the use of information. According to one teacher, the 153 district faculty members listed for possible lay-off,

> were all checked out. They [District officials] were looking at projector use. They figured that teachers who were showing a lot of films weren't teaching. They considered people's academic qualifications to teach subjects, their classroom control, anything that would justify cutting them. So all this [student survey] information -- well, there's some specific feelings of mistrust.

Later on, in the 1983-84 school year, contract negotiations between the local teachers' association and the District reached impasse. Teachers felt not only that the District's firm salary offer was unsatisfactory but that it was extremely unreasonable. This situation aggravated the wounds opened by the reduction in force, leaving teachers feeling beleaguered and unsupported. Problems that might otherwise have been interpreted by teachers as petty, bureaucratic inefficiencies came to be viewed as evidence of the District's disregard for their professional status and needs.

The conjoint King High-UCLA reality test did not escape the effects of all this, as the following excerpt from participant-observation field notes shows.

NOTE #7 (May 23, 1984). The Period 2 small-group session is under way. A UCLA staff member has explained the project's aims and elicited reactions. Many are negative.

Social Studies Teacher: "Part of the reaction you'll be seeing all day lies in the fact that we're in the classroom, we need supplies, materials, support of this kind, and we're not getting it. Administrators are going off to meetings, intellectualizing about new educational ideas, but we can't get what we need to do our jobs."

English Teacher: "I have a college prep class, British Literature. There are books we need to read, which I ordered ages ago. They haven't arrived on time. How am I supposed to teach literature without books?"

Social Studies Teacher:" "The anthro. books I ordered in September for this semester haven't arrived yet."

Second Social Studies Teacher: "The same thing has happened with my global geography text. These are the problems we face, the practical day-to-day things. What am I going to do with more information?"

English Teacher: "You're dealing with a very embittered staff. There's conflict between the teachers and the Hill [the District office]. Teachers here have been mistreated."

Later, in the sixth period session, a teacher echoed these same themes. "Why should we get excited about information systems," he asked rhetorically, "when the district can't even order me my books? This [student survey] will just tax an already over-taxed system."

Not only did many teachers feel that the District failed to facilitate their routine work, they also felt that the District administration failed to support them emotionally. When the time came to administer the student survey, for example, one teacher maintained:

> We have a history of being told the results of everything in a way that points out our weaknesses. The kids have just been taking tests, and regardless of the results, they'll find fault with us somehow. What they'll say about our way of giving tests will be negative.

And as noted earlier, when the results of the survey had been delivered to teachers on the at-a-glance forms, several concluded that history was repeating itself. "This just tends to reinforce the fact that what you're doing in the classroom is wrong," asserted one.

Perhaps the teachers had reason to believe that those in the District office emphasized the negative and generally failed to appreciate their efforts. Prior to one of the period-by-period meeting with teachers held on May 1, 1985, a group of faculty members were engaged in conversation. One, a long-time coach in the District, was retiring in June, and he carried a letter on District stationery thanking him for his contributions. Showing it to his colleagues, he remarked with a wry laugh, "See what you have to look forward to? Twenty-two years in the District and what do you get? A dittoed form letter with the Superintendent's signature rubber-stamped. Doesn't even sign it." Then he shook his head, smiled rather grimly, and added, "Typical, isn't it?"

If the District's attitudes and actions left teachers feeling abandoned, they also influenced school administrators. Several described ways in which recurrent District personnel decisions functioned to undermine the authority of the Principal. And with a tone of resignation, the Principal himself commented, "District support just isn't there. Every school is expected to operate on its own." The course of the District administration's dealings with the information-system project (Dorr-Bremme, 1984, pp. 36-46) and its ultimate termination of support (discussed above) tends to confirm that viewpoint.

All of this should underscore the point that addressing school-level organizational arrangements is not enough to prepare the way for comprehensive, instructional, information systems, even when they are school-based. Equally important, if not more fundamental, is building an environment of trust, mutual respect, and mutual support between educators in the school and those in the central district offices.

Teachers' Thinking and Reasoning About Information

This section describes and documents three themes that emerged in the course of observing how teachers routinely thought and reasoned about information:

(1) Teachers' thinking about and use of information seemed to reflect their philosophies of teaching. Those who believed that the act of teaching meant endeavoring to "reach" each student were more amenable to information for instructional decision making.

(2) Teachers' attitudes toward and use of information also appeared to reflect their interpretations of the social meaning of the data. Those who believed that information could only dictate action -- that information "told" them how to teach -- tended to reject it.

(3) Teachers who were inclined to use information judged and valued it from a "clinical" perspective.

Analysis in the previous section interpreted reality test activities and results from a social organizational perspective. In this section, some of these same phenomena are explained in light of teachers' ways of thinking and reasoning about information, as outlined in the three generalizations above. Such explanations may at first appear as alternatives to, or in conflict with, the social organizational interpretations offered earlier. In fact, however, these two interpretive frameworks -- one attending to organizational factors, the other to teachers' belief systems -- are complementary. Some of the ways in which teachers routinely thought and reasoned about information were sustained by the social organization of the school, and reciprocally, some features of school social organization were supported in part by the ways teachers thought and reasoned. These interrelationships will be noted at appropriate points in the following discussion.

Teaching Philosophies and Orientations Toward Information

As previously described, some teachers dismissed Student-At-A-Glance and Class-At-A-Glance data as irrelevant. Others found those data "interesting" as general information or as "explaining" what went on in their classes, but they did not use them explicitly to inform their teaching. Contrast to these two groups, another set of teachers reported that at-a-glance information did inform their teaching and/or social interaction with students. These different orientations toward the at-a-glance data seemed at once to reflect and to follow from differences in instructional philosophy: differences, that is, in what teachers believed that it meant to teach students in a classroom setting.

Those teachers who used Students-At-A-Glance and Class-At-A-Glance to inform their instructional choices seemed to believe that teaching meant "reaching" individual learners and class groups: that is, teaching meant facilitating learning. At the same time, these teachers' orientation emphasized that all students did not function in the same way as learners. The young people in their classes had, they perceived, individual learning styles, unique academic histories, different strengths and weaknesses. Classes, as aggregates of individual learners, could manifest different tendencies: modal attitudes and preferences about how to learn. Thus, for these teachers, reaching students or facilitating learning meant adapting instruction in ways that took individual differences and class tendencies into account.

It was in the context of this system of perception and belief that information about students and class groups became relevant and useful. The following quotations taken from the small-group discussions held period by period on May 1, 1985, make this clear:

> -- If a kid has been having trouble in my class and I look at the CTBS [test scores] and attitude toward math and I see that they're low, I can try to give them extra help.
>
> -- A student I know was having some problems, just wasn't functioning in class. I looked at the reading and language [test results] and they were real, real low, around the twelfth and seventeenth percentile. I decided to see if the LRC [Learning Resource Center] could help him.
>
> -- I'm glad to have the CTBS scores in language arts and reading. That's what social studies is, reading and writing. So I'm pleased to have a way to identify right off which kids have reading problems so I can begin to take that into account.

Or, as an English teacher concisely summarized it, "the [at-a-glance] information helps you adjust more quickly."

Each of these comments reflects the view that the teacher's job is to "reach" and facilitate the learning of individuals and class groups. Each also shows how the at-a-glance data could serve in that task. The same connections are equally evident in all the instructional-decision-making uses teachers make of Students-At-A-Glance and Class-At-A-Glance. (See Part II, pages 58 through 67 and 71 through 74.) Professional time might be limited and the school schedule full, but with the orientation toward teaching described here teachers could readily find that the at-a-glance forms and the project that produced them were well worth whatever time and effort they consumed.

Teachers who rejected the relevance of the forms, on the other hand, demonstrated a different view of teaching. Many spoke and acted so as to reveal the philosophy that teachers should present information in whatever way they saw fit; able students would "get it" and less-able students simply would not. (Often, teachers with this instructional philosophy were adamant in asserting that counselors should be sure that the students assigned to their classes were capable of "getting" the course content.)

Perhaps the most explicit statement of this philosophy of teaching was articulated in one small group on November 7, 1984, as teachers took their first look at the at-a-glance prototypes. Said a math teacher, gesturing at the forms,

> This is futile. It requires me to make an individual prescription for every kid's teaching. I'm a Darwinist. I think the fittest will survive.

In reacting to the at-a-glance information on May 1, 1985, other teachers voiced a similar perspective. One English teacher, for example, maintained that her American literature class had a "2.0 GPA." But, she went on, "I can't deal with that. I still have to teach them Steinbeck and other things like that, so I have to forget their limitations." Later, the same teacher argued, "They may hate reading plays, but when you teach The Crucible, that's just the way you do it." Yet another teacher put it this way:

> The Class-At-A-Glance is interesting intellectually, but absolutely useless insofar as it will change my teaching. The basic

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> structure of courses is to get through various material, and there's usually one best way to do it.

And, in another small group meeting on May 1, two teachers rejected the relevance of the at-a-glance information in the successive comments that follow:

> Health Teacher: I see it as a counseling tool. It's of no practicality to me and I didn't use it at all. I can't control what they come into my classroom with, and I don't have time or energy to deal with all their little problems. That's the counselor's job.
>
> Science Teacher: Idealistically it's beautiful, but practically? If I was God I could probably put it to good use...In science we're moving pretty fast all the time, so we don't have time to worry about whether the individual kid is getting it. They either do or they don't.

Such reasoning reflected two features of King High's social organization: the scarcity of time and the sharp division of roles among school personnel. At the same time, it contributed to the maintenance of social organizational arrangements at King. Teachers who offered such arguments explicitly or implicitly rejected responsibility for dealing either with individual students' needs or the schoolwide conditions that constrained instruction: they saw themselves as obliged only to cover the course material of their classes. Thus, they collaborated in sustaining the distinct differentiation of roles that was evident at King, together with the limitations on teacher power that come with that.

Most important here, teachers who held the perspective on teaching manifested in these remarks had little use for Students-At-A-Glance or Class-At-A-Glance information. From their point of view, it was impractical and/or inappropriate for a teacher to adapt instruction to individuals or class groups. Thus, information on the attitudes, histories, and preferences of particular students and classes was irrelevant to their work. The time and effort it took to gather and present that information were costs without concomitant benefits.

These observations underscore the importance of taking teachers' instructional philosophies into account during the development of school-based information systems for instructional decision making. The relevance of information is not determined by the nature, quality, presentation and timing of the information itself; it is also judged against the background of teachers' beliefs about their roles and responsibilities.

The Social Meaning of Information and Teachers' Attitudes Toward It

Presenting teachers with information about their students is a communicative act. Just as recipients of all communications must do, teachers who are presented with information about their students must interpret what it means, both referentially and socially. Interpretations of referential meaning answer the implicit question, "What does this communication literally mean?" or "To what phenomenon in the world does it refer?" Thus, for instance, a grade point average of 3.1 means referentially that the average of all the student's course grades (where A=4, B=3, etc.) is slightly above a B. A plus sign in the column headed "Like School" on Students-At-A-glance meant referentially that the student had checked either "strongly agree" or "agree" in response to the questionnaire statement, "I like school." When we use the term meaning in everyday conversation, we most often have in mind the literal, referential meaning of the word, gesture, or other sign in question.

Interpretations of social meaning, in contrast, answer the implicit questions, "How should I treat this communication? What should I do about it?" When confronted with a given communication, individuals' answers to these questions can vary, but they are typically constrained by local cultural standards and norms. Thus, for example, a grade point average of 3.1 in one setting may be socially considered as "outstanding" and as warranting such actions as placement in advanced courses and recognition on the honor roll. Elsewhere, it may be treated socially as "good solid performance" and as warranting nothing more than recognition that the course was passed. The term social meaning is commonly used among those who study how language functions, but rarely in everyday talk. Nevertheless, the concept of social meaning is useful in accounting for teachers' reactions to the at-a-glance information.

When teachers at King High School were presented with Students-At-A-Glance and Class-At-A-Glance data, they arrived at various interpretations of their social meaning. That is, they reached different answers to the questions, "How should I treat this information? What should I do about it?"

A good many techers at King took the presentation of the at-a-glance data to mean socially, "Here are some things that you might want to know about your students as individuals and as class groups. Within the bounds of profesional ethics and practice, review it, reflect upon it, take action based upon it however much and in whatever ways you see fit." That many, probably most, King teachers arrived at this social meaning (which was the one intended by UCLA and King Work Group members) was evident in the trends of talk and action that followed the presentation of the forms. Most teachers, that is, went ahead to review the information, consider its various merits and uses, and finally to either accept and use it or to reject it.

Other teachers, however, seemed to arrive at a different social meaning for the presentation of the at-a-glance forms. They appeared to conclude that the delivery of Students-At-A-Glance and Class-At-A-Glance was an imperative to action. They spoke and behaved as if the Work Group (or the school administrators or the District leadership) were in fact saying, "Address these individual differences in your teaching. Do what students, through their questionnaire responses, are telling you to do!" Once this interpretation had been reached, it allowed the teachers who reached it to reject out of hand the at-a-glance forms and the information they displayed. From their point of view, the whole idea that the forms and information stood for was ludicrous. Why should teachers, as subject matter experts and profesional educators, permit students to tell them how to teach? How could teachers working with upwards of 150 students a day, day after day, possibly address each one's unique needs--even assuming that trying to do so was appropriate?

Such a priori dismissal of the at-a-glance data has been demonstrated in some of the previously quoted comments of teachers. Consider, for instance, the remarks of the "Darwinian" math instuctor who maintained that the information "requires me to make an individual prescription for every kid's teaching" and the health and science teacher who perceived the whole project as "idealistic." Further evidence of these viewpoints appears in the quotations below, which document that some King staff members had difficulty moving beyond the point of believing that the forms were designed to tell them what to do.

Discussing Class-At-A-Glance activity preferences in one small group session at the November 7, 1984, faculty meeting, one teacher argued,

> They say they don't like to write term papers and things, but they might not be able to write them; they might need to learn how to write them. They want to be passive, watch TV, and all. They just want to tune this out. You can't act on this. What they should be doing is getting the skills that they need.

In an interview, another faculty member agreed.

> At this level, the teacher is an expert. We know what the students will say, that they like field trips, that they like watching TV and movies, that they don't like research papers or taking notes or listening to the teacher lecture. But lecturing may be the way of conveying the information they have to know. Are we doing kids a favor by not lecturing, not making them take notes,if they're college prep students? Are we helping them by not assigning research papers when that's something they're going to have to know how to do later on?

And in a small-group session on May 1, 1985, the following exchange unfolded:

> English Teacher: I'm sorry. I apologize for my hostility, but I believe reading and writing should be parts of English regardless of whether the kids like them. If they want to make maps, they should be doing that

somewhere else.

> UCLA Project Co-Director: Well, I don't think anyone's saying that you have to do that or anything else that it says there. Maybe you'd simply just want to know how the students in that particular class feel. Couldn't knowing their preferences help you approach what you want to do in a more informed way?
>
> English Teacher: I don't see how.
>
> Social Studies Teacher: Well, say they like acting out a play. We could try that, but it doesn't mean we aren't going to read it, do a written analysis of the main character, or whatever.
>
> English Teacher: I just don't see what this gives me, what it's going to do. I'm the one who's responsible, after all.

It should be evident from these comments and others in this section that teachers' interpretations of the social meaning of information--their ideas about what it is for or about; their concepts of how it should be treated and what should be done about it--can have a substantial influence on teachers' attitudes toward that information. For some teachers, simply explaining that the data can be used in any of a wide variety of ways as they see fit, is not sufficient. Teachers generally are untrained in diverse ways of looking at and using student- and class-level information of the types the project presented. Furthermore, they are frequently given information by authorities above them in the school and district hierarchy with the explicit or implicit directive, "Do something about this!" Under these circumstances, it is not surprising that some teachers will read this message into any presentation of information, even when they are repeatedly told that it is up to them to choose how to deal with that information. Those who strive to develop comprehensive, school-based, information systems should bear this in mind and set their plans and expectations accordingly.

Teachers' Clinical Perspective on Information

The preceding two sections have indicated that King High School teachers' philosophies of teaching and interpretations of the at-a-glance information's social meaning influenced the ways in which they thought and reasoned about the value and utility of that information. These two factors, in interaction with social organizational arrangements at the school, had a great deal to do with whether teachers decided to use or not to use Students-At-A-Glance and Class-At-A-Glance.

The ways in which teachers thought about information, in general, however, also influenced their use (or non-use) of data in another way. There were, as has been noted, strikingly few social or group uses of any of the information developed during the project. Relatively little was done with the data on School-At-A-Glance or with the summary of students' survey responses. Staff members did not call for data aggregations to address departmental or program-specific issues; they did not bring together the at-a-glance forms for their individual classes to inform discussion of such issues. King High School's organizational structure tended to inhibit these kinds of information use in ways that have been described. (See pages 9 through 14 above). But the limited social or group use of information aggregated beyond the class level were also ascribable to teachers' clinical perspective.

Two hallmarks of the clinical perspective, according to sociologists of applied knowledge, are its orientation toward action and its emphasis upon the individual case. Elaborating on these points, Homans (1950) explained:

> Clinical science is what a doctor uses at his patient's bedside. There, the doctor cannot afford to leave out of account anything in the patient's condition that he can see or test. It may be the clue to the complex... In action we must always be clinical. Analytic science is for understanding but not for action.

Noting with Homans that the aim of the clinical practitioner "is not knowledge but action," Friedson (1970) adds that "the clinician is prone in time to trust his own personal first-hand experience" and to be "particularistic," stressing the uniqueness of each case to be treated. The "clinical rationality," Friedson (1970, p. 171) concludes, "is particularized and technical: it is a method of sorting the enormous mass of concrete data confronting [the practitioner] in individual cases."

It was the clinical orientation as defined here that permeated the thinking of King teachers throughout the reality test. During Work Group sessions, faculty members who participated in developing the student survey and at-a-glance forms rarely manifested a spontaneous interest in knowing about students in the school as a whole or even student groups in given departments or programs. As they chose questionnaire items and data to include on the forms, their central interest was highly particularistic. They wanted to know primarily about "this student" and (secondarily) "this class." They, and many of their colleagues on the faculty at large, emphasized the importance of having information at the beginning of the semester. At that time, it had greater marginal utility. Later on, the plethora of personal, first-hand information gained through interaction with students would provide a more solid basis for instructional decision making. Furthermore, the clinician's action orientation was manifested by everyone on the King High School faculty from the outset of the project to its conclusion. Work Group members routinely assessed the value of information by asking, explicitly "What can I do with that?" Teachers who rejected the at-a-glance data as a whole or in part did so on the grounds that it was not relevant to their day-to-day classroom responsibilities. This was true even of those who felt the information came too late in the year to be useful; their argument was that the timing of its delivery restricted its utility for action.

Teachers' clinical way of approaching information is well documented in other project reports (Dorr-Bremme, 1984, pp. 19-28; Sirotnik, Dorr-Bremme, & Burstein, 1985). These also expand upon the clear interdependency of teachers' clinical perspective and the social organization of King High School. Suffice it to add here only that as the reality test ran its course, Work Group members seemed to become slightly more attuned to the social uses of data aggregated at the school level. During the last Work Group meeting with UCLA staff on May 8, 1985, for example, several King staff members spoke of gathering longitudinal data to track changes in students' attitudes schoolwide. They argued in behalf of retaining student questionnaire items -- items that had no obvious, clinical use for them in their own classroom -- for this purpose. Such behavior was a marked change from that which they had displayed during the original construction of the questionnaire a year before, and it suggests that in educational environments such as the Work Group, teachers can adapt their thinking about information: That they can learn to raise questions and perceive issues that lead to the social uses of data. Beyond the Work Group, however, only one faculty member spontaneously perceived any value in group uses of aggregated data -- a science teacher who saw year-to-year tracking of Students-At-A-Glance data for particular courses as useful in revising curriculum and selecting text books for those courses.

All this suggests the need for a concerted, in-service, educational effort if comprehensive, school-based information systems are to serve in group decision making toward departmental, program, and schoolwide renewal in secondary schools. As noted earlier, however, in-service education in itself cannot lead to social uses of data in school renewal unless organization arrangements accommodate such uses.

Leadership and Support

In concluding this case study of the UCLA-King High School information-system reality test, the issues of leadership and support must be addressed.

The support and collaboration of both school and district leadership tends to be critical in maintenance of innovative educational programs (e.g., Berman & McLauglin, 1977). This holds true when the innovation in question is an instructional information system. Bank and Williams (1981, 1983), for instance, have studied a small number of school districts that have made unusual advances in linking testing and evaluation data with instructional planning and decision making. In none of these cases was the mere presence of relevant and readily utilizable information sufficient in itself to sustain the links or to guarantee the information's use. In every district studied, there were one or two idea champions at the district level who took the lead in sustaining the linkage system. Furthermore, each district devoted considerable resources to structures that supported the system. Most maintained on-going staff development which helped teachers learn how to interpret and act on the available information in their everyday activities. All created (or capitalized upon) extant organizational arrangements within which school personnel were empowered to use the information in making choices among alternative educational policies and practices. In short, these exemplary districts reified their commitment to and support of instructional information systems by institutionalizing them in a network of mutually interdependent and mutually sustaining activities carried out collaboratively in both school and district settings.

Now, the reality test effort differed in significant ways from the cases studied by Bank and Williams. The latter were district generated and districtwide in scope; implementation moved "top down," from district office to the schools. In contrast, the joint UCLA-King High School project tested a school-based, "ground-up" approach to the development of information systems.

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Throughout the project at King, UCLA project directors played a primary role as idea champions. They brought the concept of comprehensive, multi-level, school-based instructionally oriented, information systems to a district and school that had only a rudimentary computerized system designed for central office personnel in counseling individual students. In Work Group sessions, UCLA participants recurrently promoted the idea of building upon that system. It was the UCLA project directors, for example, that pushed King members of the Work Group to think beyond a single-sheet class roster with GPAs and test scores. They encouraged King staff to develop student and teacher surveys; they introduced the concept of a parent survey. The UCLA staff also initiated the concepts of the Class-At-A-Glance and School-At-A-Glance displays. At the same time, the UCLA project directors and their assistants assumed primary responsibility for technical and logistical support. They devised and demonstrated alternative data analyses and formats; they lead meetings; they carried out a good deal of the liaison between the school-based effort and the Valley Unified administration.

Along the way, King staff members began to assume some leadership responsibilities. Teachers in the Work Group enthusiastically took roles in presenting the project and its at-a-glance prototypes during the whole faculty meeting in November of 1984. They "talked up" the project with colleagues and explained the diverse utility of Students-At-A-Glance and Class-At-A-Glance. As the reality test drew to a close, several Work

Group teachers volunteered to do the work that was necessary to assure production of those forms with new data in the fall of 1985. In addition, the King Principal and one assistant principal articulated their support for the project throughout. They showed that support by attending project meetings and by making sure that a variety of clerical chores upon which the project depended were carried out.

Notwithstanding these important contributions, however, no one emerged from among King's staff to champion the information-system idea. Work Group teachers were overcommitted. Their time and energy was divided among this project and a variety of others. One of the most supportive teachers, for instance, had no free period (due to extra responsibilities for which she had volunteered), was active in the Career Magnet School endeavor, and served on the steering committee of the faculty forum. Another invested time in the Career Magnet, Adopt-a-School, and School Improvement efforts, as well as the faculty forum. The Principal, as has been described, was caught in a web of state and district requirements, school programs, faculty malaise, and situational problems. The assistant principal who collaborated with the Work Group was in charge of virtually every other special project in the school. Under these circumstances, it was difficult for any of the most centrally involved King personnel to devote substantial time to the information-system project. Furthermore, none had the comprehensive vision of what an information system could become that was necessary for leadership. Rather than the systemic evaluation concept that informed UCLA staff's guidance or some other broad model, key

King staff members had in mind only a limited and loose collection of emerging ideas that centered on the Student-At-A-Glance form. This was a reasonable state of affairs given their beginning familiarity with information systems but it functioned to restrict the level of leadership they could provide.

These circumstances at the school level were exacerbated by the limited interest and commitment of District officials, none of whom emerged to champion the information-system's continued evolution.

All of this helps to explain why, during the reality test, the support structures, in-service training, and the organizational arrangements found in the districts studied by Bank and Williams never emerged in King High School or the Valley Unified School District. The reality test at King High School serves to demonstrate the importance of these kinds of organizational supports and the leadership which can initiate and sustain them.

Conclusion

The conjoint UCLA-King High School comprehensive-information-system reality test reveals some important lessons for other schools and districts. It makes apparent the complex network of factors that must be taken into account in developing, implementing, and maintaining such systems in secondary school settings.

The "under-utilization" of extant information at King High School was not unique, nor were the circumstances which appear to have led to the restricted use of the original CASA system or of

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the system UCLA eventually built upon it. Clinical thinking about information was sustained by the atomistic nature of King's organizational structure; but many comprehensive high schools share this structure, and a clinical perspective toward student information is widespread. All secondary schools include staff with diverse teaching and philosophies and ways of making sense of information. Bad experiences with information -- experiences in which the time-and-effort costs far exceed discernible benefits -- are common in schools. So too are instances of district-faculty conflict and mistrust generated by contract negotiations and reductions in staff. Policy changes and vacillations in district support for schools' projects are usual, not extraordinary. Any "ground-up" school-based information system, then, is likely to encounter such issues in the course of its development.

As this paper has illustrated, such systems do not succeed or fail by virtue of their independent merit, on the basis of their quality or convenience or relevance alone. Rather, an information system and its social context are interdependent in dynamic, ecological balance. The social organizational arrangements of the school and district shape and sustain (or fail to sustain) the information system; and it, in turn, helps to shape and sustain (or fail to sustain) the arrangements of the school and district. The relevance and utility of information is not judged in a vacuum, but in the context of educators' role perceptions and beliefs about the social meaning of information, as well as against the background of their orgainzational circumstances. Thus, organizational restructuring, educative dialogue and experience, realignments of power, construction of trust, and on-going resource commitments are essential ingredients in the development of maximally useful, comprehensive information systems for instructional decision making and general school renewal.

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FOOTNOTES

[1] King High School and Valley Unified School District are pseudonyms used to preserve the anonymity of the school, school district, community, and individuals connected with them.

[2] See "Goals of the Reality Test," pp. 8ff

[3] These were assembled and included in an earlier project report by Sirotnik, Burstein, and Thomas (1983).

[4] See pp. 12 - 13 above for an explanation of King High School's Career Magnet School (CMS) program.

[5] This confusion was understandable, in that one of the project's co-directors was affiliated with the Laboratory and through it the Partnership. Furthermore, both of the project co-directors had visited King High School prior to the start of the information system reality test to conduct Partnership projects. Nevertheless, the reality test itself was part of an on-going line of reesearch at UCLA's Center for the Study for Evaluation through a grant from the National Institute of Education, and UCLA staff had reiterated this point a number of times. It seems, however, the primacy of information took place over recency: many educators in the school, as well as those in the District continued to think of the comprehensive information system project as part of the Partnership.

[6] It is worth clarifying that the Student-At-A-Glance form did not lest any data on lateness and, while it did list whole-day absences in the year to date, it did not distinguish between excused and unexcused absences. Nevertheless, the teachers' reasoning should be clear.

[7] One teacher, however, reported that she did, soley on her own accord, show the "School-At-A-Glance form at a meeting of the King High Adopt-A-School program (This program was intended to stimulate community involvement with the high school and, expecially, to elicit the support of local businesses and community groups for school programs.) "We used it," she reported, "to say, 'Hey, we need community involvement! the kids here want to go to college but they aren't going.' The forms shows this is so. Our Career Day grew out of this meeting," the teacher continued, "so the issues brought up in School-At-A-Glance, indirectly, helped stimulate Career Day."

[8] Recall that Teachers tended to focus on "discrepencies, i.e., high GPA-low test score students, low GPA-high test score-high educational expectation students.

APPENDIX A

Royal High Student Survey Results
May 1984

Questions About Yourself

1. Sex:
49 A. Male
51 B. Female

2. Besides English, what other languages are spoken in your home:
77 F. None
10 G. Spanish
1 H. Vietnamese
1 J. Chinese
10 K. Other

3. Living situation:
78 A. With two parents (includes stepparents)
15 B. With one parent only (mother or father only)
3 C. Guardian(s)/foster parents
1 D. Alone or with friends
3 E. Other

4. About how many hours a week do you usually spend working on a job during the school year?
50 F. None. I am not employed during the school year.
14 G. About 10 hours or less
18 H. About 15 - 20 hours
13 J. About 20 - 30 hours
6

5. How many hours do you watch television each day?
14 A. None
38 B. About 1 hour
36 C. About 2 - 3 hours
8 D. About 4 - 5 hours
4 E. More than 5 hours

Choose the ONE answer that best completes each of the following sentences.

6. If I could do anything I want, I would like to:
3 F. Quit school as soon as possible.
19 G. Finish high school.
22 H. Go to trade/technical school or junior college.
50 J. Go to a 4-year college or university.
6 K. Don't know.

7. I think my parents would like me to:
1 A. Quit school as soon as possible.
19 B. Finish high school.
15 C. Go to trade/technical school or junior college.
62 D. Go to a 4-year college or university.
4 E. Don't know.

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8. Actually, I will probably:

1 F. Quit school as soon as possible.
23 G. Finish high school.
30 H. Go to trade/technical school or junior college.
40 J. Go to a 4-year college or university.
6 K. Don't know.

9. How comfortable do you feel about choosing a future career goal at this point in your life?
10 A. Very Uncomfortable
13 B. Uncomfortable
34 C. Neither Uncomfortable or Comfortable
31 D. Comfortable
12 E. Very Comfortable

The following sentences describe some of the ways in which people might think about themselves.

Read each of the following sentences carefully and mark the letter on the answer sheet that tells how much it is like you.

Look at the following practice sentence and mark the letter on the answer sheet that tells how much you agree or disagree with the sentence.

PRACTICE	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
I am good at art	A.	B.	C.	D.	E.

If you Choose "Strongly Agree," you're saying that you are very good at art. If you choose "Mildly Agree," you're saying that you are OK at art. If you choose "Mildly Disagree," you're saying that you are not too good at art. If you choose "Strongly Disagree," you're saying that you are very poor at art.

	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
10. I'm popular with kids my own age.	21	52	20	5	1
11. Kids usually follow my ideas.	12	47	29	9	3
12. Most people are better liked than I am.	6	13	32	29	19
13. It is hard for me to make friends.	4	11	5	27	52
14. I have no real friends.	3	4	4	10	79
15. I'm not doing as well as I'd like to in school.	36	32	5	14	12
16. I am a good reader.	39	37	11	8	5
17. I'm proud of my schoolwork.	16	37	17	19	11
18. I'm good at math.	22	33	14	17	14
19. I'm doing the best work that I can.	14	28	13	28	16
20. I am able to do schoolwork at least as well as other students.	46	32	14	6	2

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	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
21. My grades are not good enough.	27	32	8.	18	15
22. I'm always making mistakes in my schoolwork.	5	16	16	40	23
23. I am a good writer.	21	38	21	14	7

Questions About Your School Life

How much do the following words describe most of the teachers at this school?

	Very Much	Pretty Much	Some-what	Only A Little Bit	Not at All
24. Friendly	11	51	27	8	3
25. Helpful	12	48	28	9	3
26. Have high hopes for us	12	28	36	18	7
27. Talk to us	18	39	27	12	3
28. Let us talk to them	17	37	29	13	4
29. Care about us	9	31	36	16	7
30. Do a good job	12	49	26	8	4.

How much do the following words describe how you feel about most of the students at this school?

	Very Much	Pretty Much	Some-what	Only A Little Bit	Not at All
31. Friendly	13	51	28	7	2
32. Helpful	7	32	40	17	4
33. Have high hopes	8	28	43	16	4
34. Smart	7	41	41	9	2
35. Talk to each other	46	36	12	3	1
36. Care about each other	17	41	29	10	3
37. Competitive	41	32	20	5	2

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38. The most popular students in this school are: (Choose only one answer)

48 F. Athletes
3 G. Smart students
9 H. Members of student government
35 J. Good-looking students
3 K. Wealthy students

Indicate whether or not you participate in the following activities at school. (Answer yes or no for each of the following).

	Yes	No
39. I participate in sports teams/drill team/flags/cheerleading.	37	60
40. I participate in student government.	8	88
41. I participate in music, band, drama, or other arts.	17	79
42. I participate in honor society.	19	77
43. I participate in school clubs/community service activities.	26	71

Below is a list of things which may be problems at this school. How much do you think each is a problem at this school?

	Not a Problem	Minor Problem	Major Problem
44. Student misbehavior (fighting, stealing, gangs, truancy, etc.)	17	62	19
45. Poor courses or not enough different subjects offered	40	40	17
46. Prejudice/Racial conflict	66	26	7
47. Drugs	16	49	34
48. Alcohol	18	45	36
49. Poor teachers or teaching	33	48	17
50. School too large/classes overcrowded	59	31	9
51. Teachers don't discipline students.	57	34	8
52. Poor or not enough buildings, equipment, or materials	41.	38.	19.
53. The principal and other people in the office who run the school	32	34	32
54. Poor student attitudes (poor school spirit, don't want to learn)	23	49	26
55. Too many rules and regulations	21	35	43
56. How the school is organized (class schedules, not enough time for lunch, passing periods, etc.)	12	28	58

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Issues and Problems:

Read each one of the following sentences carefully and choose the letter that tells how much you agree or disagree with what it says. CHOOSE ONLY ONE LETTER for each sentence. Please raise your hand if you have any questions.

	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
57. What I'm learning in school is useful for what I will need to know NOW.	21	40	16	16	7
58. What I'm learning in school will be useful for what I will need to know LATER in life.	34	33	15	10	8
59. I think students of different races or colors should go to school together.	67	11	3	10	E.
60. Girls get a better education than boys at this school.	5	6	23	11	55
61. There are places at this school where I don't go because I'm afraid of other students.	6	8	6	10	68
62. Boys get a better education than girls at this school.	6	3	23	12	59
63. I do not have enough time to do my school work.	15	28	13	26	18
64. High school students should have job experience as part of their school program.	32	27	23	11	7
65. Many students at this school don't care about learning.	22	34	24	15	4
66. Average students don't get enough attention at this school.	17	29	29	17	6
67. Some of the things teachers want me to learn are just too hard.	12	21	17	29	20
68. Too many students are allowed to graduate from this school without learning very much.	19	22	23	17	16
69. If I had my choice, I would go to a different school.	11	8	21	18	42
70. There are things I want to learn about that this school doesn't teach.	29	34	18	15	13
71. It's not safe to walk to and from school alone.	5	8	11	15	60

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	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
72. I have trouble reading the books and other materials in my classes.	7	12	8	23	52
73. The grades or marks I get help me to learn better.	17	29	25	17	11
74. I like school.	19	41	14	12	12
75. The grades or marks I get in class have nothing to do with what I really know.	21	25	19	21	E.
76. I have to learn things without knowing why.	18	27	21	19	13
77. Parents should have a say in what is taught at this school.	17	27	23	16	16
78. It is easy for me to get help from a counselor when planning my school program.	39	28	10	11	9
79. We are not given enough freedom in choosing our classes.	27	21	11	23	18
80. We are not given enough freedom in choosing our teachers.	49	19	8	12	10
81. If I have a personal problem, it would be easy for me to get help from a counselor.	19	17	26	14	23
82. If you don't want to go to college, this school doesn't think you're very important.	8	16	31	21	22
83. Students should have a say in what is taught at this school.	37	32	14	9	6
84. A person is foolish to keep going to school if he/she can get a job.	4	4	9	16	65
85. If I need help planning for a career, it would be easy for me to get help from a counselor.	35	26	18	11	8
86. I like the way this school looks.	14	42	18	16	9
87. It is easy to get books from the school library.	40	36	11	6	4
88. Things in the school library are useful to me.	32	41	15	7	4
89. Materials in the Career Guidance Center (CGC) are useful to me.	29	27	29	8	5

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Questions About Teaching, Learning & Classroom Work

All schools teach pretty much the same things, but they may think some things are more important than others. . .

90. Which ONE of these does this school think is the most important thing for students? (Choose only one)

7 F. To work well with other people
65 G. To learn the basic skills in reading, writing, arithmetic, and other subjects
13 H. To become a better person
10 J. To get a good job

91. If you had to choose only the ONE most important thing for you, which would it be? (Choose only one)

14 A. To work well with other people
24 B. To learn the basic skills in reading, writing, arithmetic, and other subjects
32 C. To become a better person
26 D. To get a good job

In general, how do you like the following subjects?

	Like Very Much	Like Somewhat	Undecided	Dislike Somewhat	Dislike Very Much
92. English	23	45	10	14	6
93. Mathematics	25	35	10	13	16
94. Social studies (history, geography, government, etc.)	20	31	13	16	26
95. Science	23	30	16	14	14
96. Computer Education	28	27	33	6	5
97. The Arts (art, crafts, music, drama, dance, creative writing, film-making, photography)	40	26	20	8	5
98. Foreign Language	13	26	24	16	21
99. Vocational/Career Education (shop, business education, home economics, etc.)	24	30	29	8	5
100. Physical Education	43	28	11	8	8

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101. How many hours of homework do you have each day?
14 A. None
40 B. About 1 hour
35 C. About 2 - 3 hours
5 D. About 4 - 5 hours
3 E. More than 5 hours

102. In general, how often do you do your homework?
21 F. All of the time
41 G. Most of the time
21 H. Sometimes
11 J. Seldom
3 K. Never

103. How soon do teachers usually return your work?
12 A. the next day
29 B. 2 days later
24 C. 3 days later
10 D. 4 days later
22 E. 5 days later or more

104. When you make mistakes in your work, how often do teachers tell you how to do it correctly?
10 F. All of the time
35 G. Most of the time
28 H. Only sometimes
18 J. Seldom
6 K. Never

105. How often do your parents or other family members help you with your school work?
7 A. All of the time
16 B. Most of the time
25 C. Only sometimes
28 D. Seldom
21 E. Never

Listed below are four ways students can work in a classroom. Choose the letter on the answer sheet that tells how much you like or would like to work in each way, even if you don't do so now.

	Like Very Much	Like Somewhat	Undecided	Dislike Somewhat	Dislike Very Much
106. Alone by myself	20	15	11	20	12
107. With the whole class	21	41	14	15	7
108. With a small group of students, who know as much as I do	39	35	12	6	5
109. With a small group of students, some who know less, some who know as much, and some who know more than I do	40	31	17	11	8

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Listed below are some things that might be used in a class. Choose the letter on the answer sheet that tells how much you like or would like to use each thing, even if you don't use it in a classroom.

	Like Very Much	Like Somewhat	Undecided	Dislike Somewhat	Dislike Very Much
110. Textbooks	11	38	14	22	12
111. Other books	10	39	26	15	6
112. Work sheets	14	40	15	17	10
113. Films, filmstrips, or slides	43	35	9	6	3
114. Games or simulations	39	29	16	7	4
115. Newspapers or magazines	18	37	23	16	5
116. Tape recordings or records	21	28	22	16	8
117. Television/video	54	31	6	3	1
118. Calculators	38	34	15	5	3
119. Globes, maps, and charts	20	34	20	13	9
120. Animals and plants	35	33	17	6	4
121. Lab equipment and materials	37	30	14	9	5
122. Computers	48	25	14	3	5

Listed below are some things that you might do in a class. Choose the letter on the answer sheet that tells how much you like or would like to do each thing, even if you don't do it in class.

	Like Very Much	Like Somewhat	Undecided	Dislike Somewhat	Dislike Very Much
123. Listen to the teacher	17	46	13	13	6
124. Go on field trips	60	23	8	3	2
125. Do research and write reports, stories, or poems	10	24	13	22	24
126. Listen to student reports	10	26	20	22	17
127. Listen to speakers who come to class	30	40	11	9	5
128. Have class discussions	40	32	11	7	5
129. Build or draw things	29	28	18	12	8
130. Do problems or write answers to questions	11	31	20	20	13

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	Like Very Much	Like Somewhat	Undecided	Dislike Somewhat	Dislike Very Much
131. Take tests or quizzes	5	25	15	27	23
132. Make films or recordings	24	23	29	11	8
133. Act things out	19	22	22	16	16
134. Read for fun or interest	38	31	13	8	5
135. Read for information	17	36	17	17	8
136. Interview people	17	24	24	17	12
137. Do projects or experiments that are already planned	20	37	17	13	7
138. Do projects or experiments that I plan	24	30	21	12	8

Please indicate how important each of the following items was in your choice of classes here at Royal High School.

	Very Important	Important	Not Sure	Not Important	Very Unimportant
139. Taking classes from teachers I like	58	23	6	6	2
140. Being in the same classes as my friends	32	33	11	15	3
141. Completing graduation requirements	74	12	3	3	2
142. Learning skills for a future job	60	24	6	2	2
143. Taking classes that will help me be a better person	46	31	10	4	2
144. Being challenged by taking hard subjects	22	33	19	13	6
145. Taking classes that will prepare me for the future	55	26	8	2	2
146. Getting a wide variety of classes	34	32	17	7	2
147. Preparing for college	48	24	13	5	3
148. Taking classes requiring little work	10	18	29	31	15
149. Avoiding subjects I don't like	22	24	22	17	7
150. Taking classes that are popular	9	17	28	27	12
151. Taking classes my parent(s) consider important	0	28	22	21	13
152. Taking classes where I can get good grades	22	30	18	17	5

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Questions About the Learning Resource Center (LRC)

153. Have you heard of the Learning Resource Center?
79 A. yes
8 B. no

154. If yes, how often have you gone with your classes to the Learning Resource Center?
22 F. Never
52 G. Only once or twice
10 H. About once or twice a month
3 J. About once or twice a week
2 K. Almost every day

155. How often have you gone to the Learning Resource Center by yourself?
50 A. Never
26 B. Only once or twice
8 C. About once or twice a month
3 D. About once or twice a week
3 E. Almost every day

If you have ever used the Learning Resource Center, have you used any of these services? (Answer yes or no for each of the following).

	Yes	No
156. Diagnostic testing for reading and math problems	8	72
157. Entry testing for proper class placement	8	72
158. Assistance with assignments from classroom teacher	16	64
159. Work on tasks assigned by the Learning Resource Center	10	70
160. After school seminars	8	71
161. Study hall	17	64
162. SAT preparation	10	70
163. Proficiency test preparation	11	70
164. Use the computer	18	62
165. Study skills	19	61
166. Language laboratory	11	69
167. Assistance in researching or typing papers	12	68
168. Use the typewriter	8	72
169. Receive individual tutoring	6	73
170. Develop library/research skills	9	71
171. Develop reading skills	9	70
172. Develop writing skills	10	69
173. Develop math skills	6	73
174. Develop listening skills	12	68
175. Develop test taking skills	14	65

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176. Have you received credit for Writing I through the Learning Resource Center?
4 F. yes
76 G. no

177. Have you received credit for Developmental Reading through the Learning Resource Center?
4 A. yes
76 B. no

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
178. The Learning Resource Center is helping students at Royal.	16	32	32	4	3
179. Most students know about the resources available in the Learning Resource Center.	9	23	23	21	9
180. I have been helped by the services of the Learning Resource Center.	9	18	20	18	20
181. I am comfortable about using the services of the Learning Resource Center.	11	18	35	11	11
182. My work in the Learning Resource Center has helped me in my courses.	7	12	32	16	18
183. My work in the Learning Resource Center has made me feel more secure about my ability to do the work assigned by my teachers.	6	11	32	16	19

Questions About the Career Magnet School

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
184. I understand what the Career Magnet School program is trying to do.	20	26	18	11	13
185. I would like more information about the Career Magnet Schools.	28	24	20	6	9

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APPENDIX B

STUDENTS AT A GLANCE

SECTION:
TEACHER:

PREPARED ON 10 OCT 84

STUDENT NUMBER	STUDENT NAME	GRADE	CM SCHOOL	ED EXPECT	DAYS ABS	CTBS READ	CTBS LANG	CTBS MATH	GPA	ACAD SC	HOMEWORK	JOB	ACTIVITY	LIKE SCH
0149043	ADAMS, WILLIAM B	12	.	4Y	.	.	.	.	1.1	H	+	P	3	+
0249052	ANDERSON, JOHN L	.	.	HS	.	.	.	.	.	M	+	F	0	+
0341950	ATWOOD, DANIEL R	12	6	HS	57	33	14	3	1.9	M	-	H	0	-
0449274	BAGLEY, LOIS J	12	3	4Y	35	52	84	83	2.6	M	0	H	2	+
0542468	BAKER, MARY M	12	3	2Y	17	34	54	3	1.8	H	+	N	2	+
0649341	BUTLER, JOYCE	12	3	2Y	18	49	67	0	2.7	H	+	N	0	+
0743686	CALDWELL, THOMAS C	12	4	2Y	11	80	88	80	1.6	M	0	H	0	0
0849048	CARTER, MATHEW	12	6	2Y	23	68	72	68	2.9	M	+	N	4	+
0942771	CLARK, LARRY F	12	6	HS	30	.	.	3	1.5	H	.	N	0	-
1049050	COOK, CHERYL	11	6	?	13	83	86	68	3.0	M	0	P	1	-
1143177	COOPER, JANE L	12	6	.	55	36	26	35	1.4	.	.	.	.	.
1244197	CURTIS, EDWARD N	12	6	4Y	27	19	7	7	2.1	M	+	P	3	+
1349286	DAVIS, LYNN	12	1	4Y	7	66	84	95	3.8	H	+	F	3	+
1449288	DUNCAN, JOHN	12	2	4Y	8	87	94	83	3.6	H	+	N	3	+
1541828	EATON, TIMOTHY	12	6	2Y	37	10	12	2	2.4	M	0	F	0	+
1649291	EMERSON, DOROTHY A	12	7	2Y	11	45	62	40	2.6	H	-	F	1	+
1749069	EVANS, ROBIN S	12	4	2Y	31	41	20	10	2.2	M	+	P	0	+
1849294	FARMER, DAVID R	12	4	HS	35	.	.	.	2.1	M	+	N	0	-
1949295	FELDMAN, ROBERT	12	1	2Y	10	63	64	64	1.7	M	-	P	1	0
2049301	FINK, AARON S	12	1	4Y	6	86	96	99	4.1	H	+	P	2	+
2149303	HARRIS, CURLEY M	12	6	2Y	35	62	40	83	2.4	M	+	P	2	+
2249306	HAYES, CYNTHIA	12	4	2Y	17	1	3	.	2.5	M	-	H	0	-
2349167	KAPLAN, HAROLD D	12	5	2Y	27	61	8	32	2.5	M	0	H	0	+
2448395	LEWIS, ANTHONY E	.	3	.	43	50	35	35	.	.	.	.	.	.
2549168	MARCUS, STANLEY	12	4	4Y	10	83	77	92	3.2	H	+	N	3	+
2649309	MC ARTHUR, EUGENE A	12	6	4Y	35	80	70	60	2.8	M	+	H	2	+
2749172	MILLER, ELIZABETH	12	3	2Y	46	23	30	28	1.6	M	+	N	0	0
2843336	MCGEE, OSCAR J	12	2	2Y	32	78	50	3	2.9	M	+	F	0	-
2949129	PACE, DONALD W	12	2	2Y	30	16	28	45	1.6	M	-	N	1	-
3042520	RANDLE, ANN	12	6	4Y	47	.	.	.	2.1	M	+	P	0	0
3142793	ROBERTSON, SHEILA	12	6	4Y	30	99	74	43	2.5	M	+	P	0	+
3243660	ROSS, RICHARD M	12	5	HS	45	.	.	.	.8	M	-	P	.	0
3343179	SANDERS, JOAN N	12	8	.	118	8	0	37	1.1	.	.	.	.	.
3449323	SCOTT, MARION J	12	5	2Y	27	47	49	31	2.1	M	+	P	0	+
3549109	SILVERMAN, ARTHUR	12	4	HS	10	61	74	26	1.9	M	-	H	0	+
3641481	SNYDER, EVELYN G	12	5	4Y	15	42	17	23	1.3	H	+	N	3	-
3744147	STERN, BRUCE D	12	6	2Y	56	54	73	40	2.9	H	+	F	2	+
3849262	STUART, DONNA	12	1	2Y	31	92	52	95	3.1	H	+	F	0	-
3949329	THOMPSON, WENDY L	12	8	2Y	27	63	50	60	3.0	M	+	H	1	-
4043580	WALKER, VICKI S	12	4	2Y	25	12	12	23	2.2	M	-	P	1	-

. = MISSING

CM SCHOOL: CAREER MAGNET SCHOOL.
1=PHYSICAL SCIENCE AND TECHNOLOGY
2=INTERNATIONAL RELATIONS & POLITICAL SCIENCE
3=BUSINESS 4=INDUSTRY 5=PERFORMING VISUAL AND FINE ARTS
6=MENTAL, PHYSICAL & BIOLOGICAL SCIENCES 7=LIBERAL ARTS
8=ENTRY AND ESSENTIALS 9=DONT KNOW

ED EXPECT: EDUCATIONAL EXPECTATION.
QU=QUIT HIGH SCHOOL HS=FINISH HIGH SCHOOL
2Y=GO TO TRADE/TECHNIC SCHOOL OR JUNIOR COLLEGE
4Y=GO TO 4-YEAR UNIVERSITY ?=DONT KNOW

DAYS ABS: NUMBER OF FULL DAYS ABSENT.

CTBS TEST RESULTS ARE REPORTED IN PERCENTILE RANK.

ACAD SC: ACADEMIC SELF CONCEPT. H=HIGH M=MEDIUM L=LOW

HOMEWORK: +=ALL/MOST OF THE TIME 0=SOMETIME -=SELDOM/NEVER

JOB: F=FULLTIME(30+) H=HALFTIME(20-30) P=PARTTIME(10-20) N=NONE

ACTIVITY: NUMBER OF EXTRACURRICULAR ACTIVITIES(1-5).

LIKE SCH: LIKE OF SCHOOL. +=LIKE 0=NOT SURE -=DISLIKE

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```
                    CLASS AT A GLANCE

                         FALL 84

SECTION NO:  XXXX
NO. ENROLLED STUDENTS:  35
NO. STUDENTS TAKING SURVEY:  35

  |------------------------------------------------------------|
  |                                                            |
  |                INSTRUCTIONAL GROUPING PREFERENCES          |
  |                                                            |
  |  ALONE            XXXXXXXXXXXXXXXXXXXX--*************      |
  |  WHOLE CLASS      XXXXXXXXXXXXXXXXX------************      |
  |  HOM SMALL CLASS  XXXXXXXXXXXXXXXXXXXXXXXX----*******      |
  |  HET SMALL CLASS  XXXXXXXXXXXXXXXXXXXXXX---**********      |
  |                                                            |
  |       XXX LIKE     --- UNDECIDED      *** DISLIKE          |
  |                                                            |
  |------------------------------------------------------------|


      |-----------------------------------------------------|
      |                                                     |
      |                     LIKING OF MATHEMATICS           |
      |                                                     |
      |  LIKE VERY MUCH                                     |
      |  LIKE SOME          *************************       |
      |  UNDECIDED          ***********************         |
      |  DISLIKE SOME       *                               |
      |  DISLIKE VERY MUCH  *                               |
      |                                                     |
      |-----------------------------------------------------|


  |------------------------------------------------------------|
  |                                                            |
  |                  STUDENT ACTIVITY PREFERENCE               |
  |                                                            |
  |  LISTEN TEACHER      XXXXXXXXXXXXXXXXXXXX-------********   |
  |  GO FIELD TRIPS      XXXXXXXXXXXXXXXXXXXXXXXXXXX---*****   |
  |  DO RESEARCH ETC     XXXXXXXXX---***********************   |
  |  LISTEN STUDENT      XXXXXXXXXXXXX-------***************   |
  |  LISTEN SPEAKER      XXXXXXXXXXXXXXXXXXXXXXXXXX--*******   |
  |  CLASS DISCUSSION    XXXXXXXXXXXXXXXXXXXXXXXXXX----*****   |
  |  BUILD/DRAW THING    XXXXXXXXXXXXXXXX----------*********   |
  |  DO PROBLEM/ANSWER   XXXXXXXXXXXXXX---------************   |
  |  TAKE TEST/QUIZ      XXXXXXXXXXX------******************   |
  |  MAKE FILM/RECORD    XXXXXXXXXXXXXX--------*************   |
  |  ACT THINGS OUT      XXXXXXXXXXX--------****************   |
  |  READ FOR FUN        XXXXXXXXXXXXXXXXXXX---------*******   |
  |  READ FOR INFO       XXXXXXXXXXXXXXXXXX------***********   |
  |  INTERVIEW PEOPLE    XXXXXXXXXXXXX----------************   |
  |  DO PROJECT PLNED    XXXXXXXXXXXXXXXXXX------***********   |
  |  DO PROJECT I PLN    XXXXXXXXXXXXXXX----------**********   |
  |                                                            |
  |         XXX LIKE     --- UNDECIDED      *** DISLIKE        |
  |                                                            |
  |------------------------------------------------------------|
```

Student Survey Results
May, 1984

School-At-A-Glance

FUNCTIONS OF SCHOOLING

Social Development

Instruction that helps students learn to get along with others, prepares students for social and civic responsibility, develops students' awareness and appreciation of our own and other cultures.

Intellectual (Academic) Development

Instruction in basic skills in mathematics, reading, and written and verbal communication and in critical thinking and problem solving abilities.

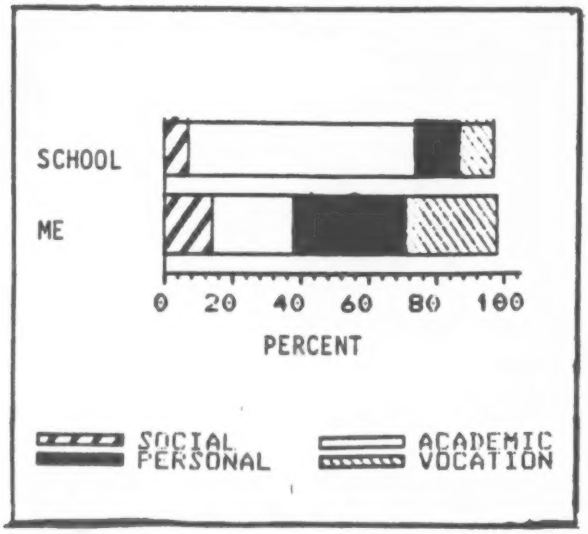
Personal Development

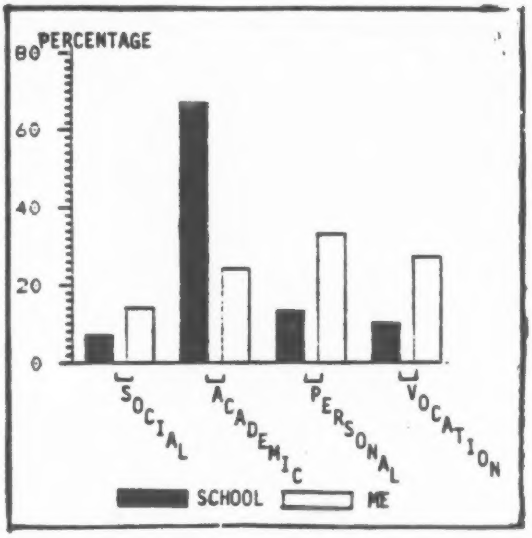
Instruction that builds self-confidence, self-discipline, creativity, and the ability to think independently.

Vocational Development

Instruction that prepares students for employment, developing the skills necessary for getting a job, developing an awareness about career choices and alternatives.

Some Student Perceptions:
(see survey questions 90 & 91; note wording --
students could only choose one)



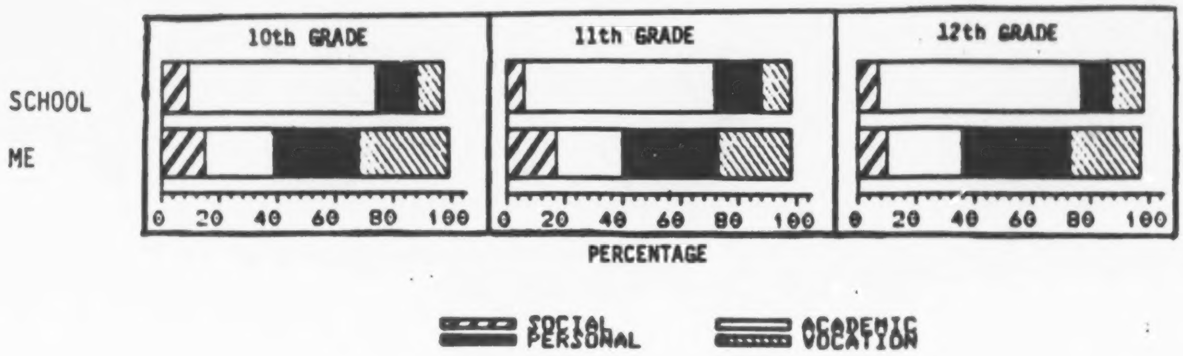


Students perceive the school as emphasizing mainly the academic function; from the students' point of view, however, they tend to spread the emphasis around to the other goal areas, particularly the personal and vocational functions.

Congruency:

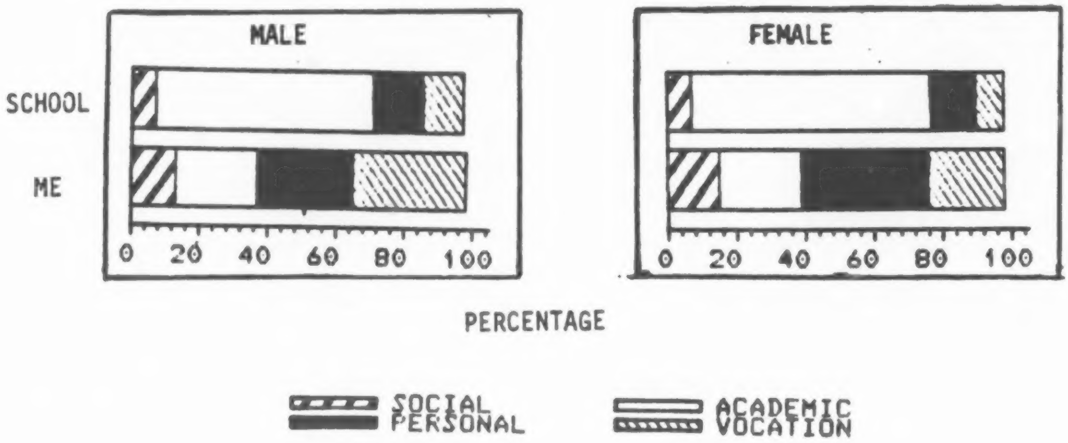
35% of the students place the most importance on the same goal area they see the school as emphaasizing. To put it the opposite way, nearly 2/3 of the students would prefer a different goal emphasis than the one they perceive.

DO THESE PERCEPTIONS CHANGE DEPENDING UPON GRADE LEVEL?



The trends, if any, are slight. Emphasis on Personal Development increases across grades (29% of 10th graders, 33% of 11th Graders and 38% of 12th graders) while emphasis on Social Development (16% in 10th grade, 17% in 11th grade, 11% in 12th grade) and Vocational Development (31% in 10th grade, 26% in 11th grade, 25% in 12th grade) decreases.

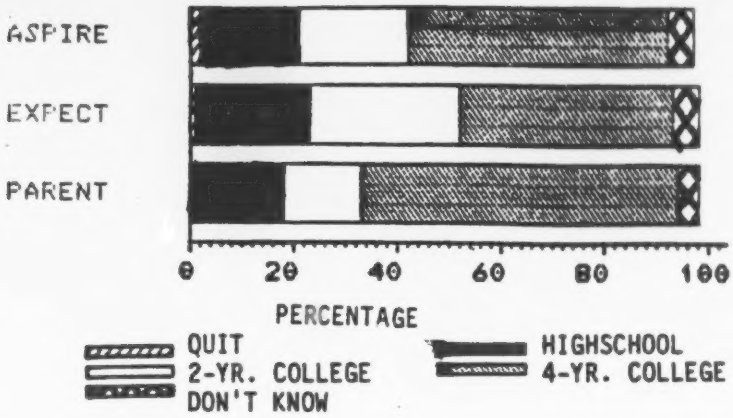
DO THESE PERCEPTION CHANGES DEPEND UPON SEX?



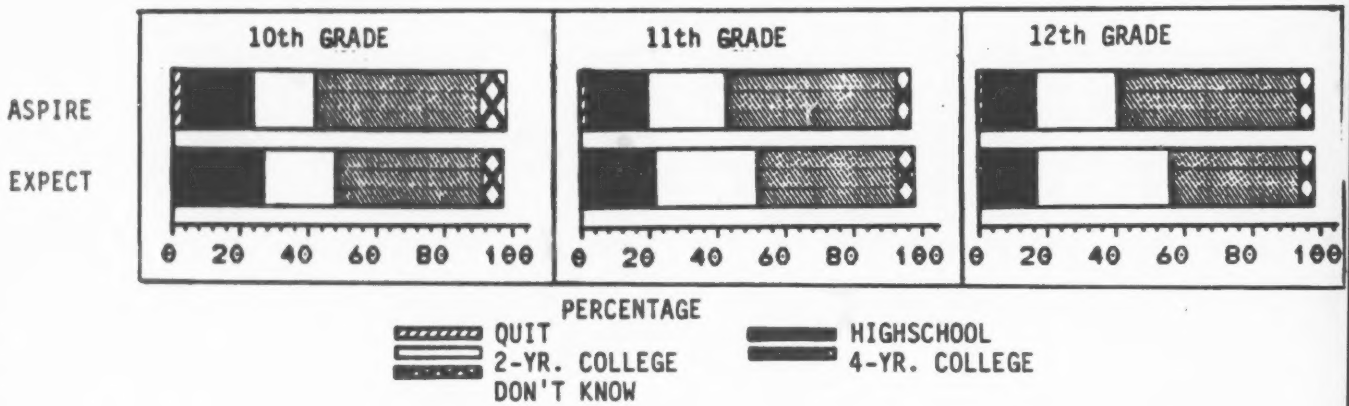
Boys place greater emphasis on vocational development than girls (33% of boys versus 22% of the girls) while girls place greater emphasis on Personal Development than boys (37% of girls versus 29% of boys).

STUDENT ASPIRATIONS AND EXPECTATIONS

(Survey questions 6, 7, and 8)



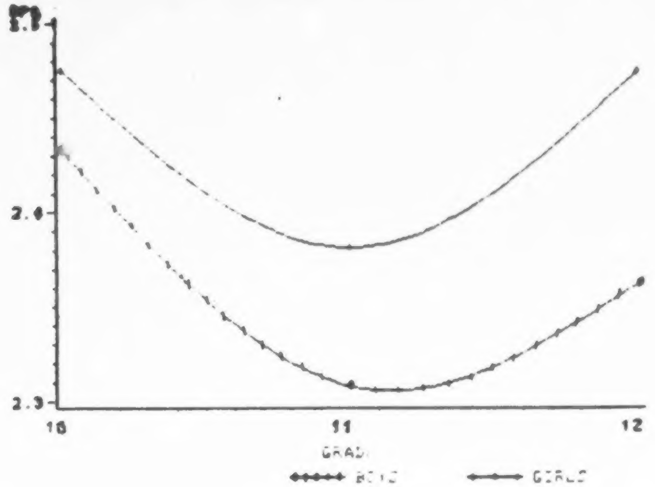
MAIN TREND: Half of the students would like to go to a 4 year college or university in contrast with only 22% aspiring to attend a 2-year college. Their expectations, however, drop by about ten percent; 40% expect to go to university and 30% expect to go to vocational school/junior college. Students perceive their parents' attitudes to be more in line with students' aspirations than with students expectations.



The general trend in aspirations is toward more education (both 2 year and 4 year college) across grades while the trend in expectations is toward less four-year college and more two-year college. While the percentage of students aspiring to attend a four-year college increases slightly across grades (from 48% at 10th grade to 53% at 12th grade), the percentage of students that expect to attend a four-year college decrease slightly (44% at 10th grade to 38% at 12th grade). The percentage of students expecting to attend a trade school or junior college increases substantially across grades (22% in 10th grade, 30% in 11th grade, and 39% in 12th grade).

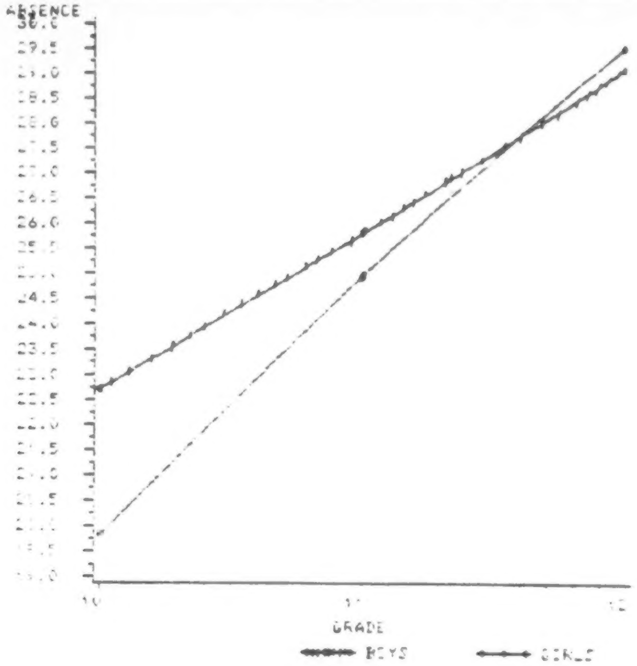
NOTE: According to district records, only 5-7% of all graduating seniors go on to a 4-year college.

GPA: Averages for Males and Females at Each Grade Level



Two slight tendencies are apparent: (1) Boys show lower GPA averages than girls, and (2) GPA goes down in the 11th grade.

DAYS ABSENT: Averages for Males and Females at Each Grade Level



Several trends are noteworthy: (1) Boys are generally absent more days than girls; (2) Absences increase almost linearly from the 10th through the 12th grades (roughly 3 to 4 more days absent in each grade level); (3) The increase in days absent over grade levels is more exaggerated for girls than boys (in fact, girls slightly surpass boys in the 12th grade).

APPENDIX C

RESULTS

Royal High School Faculty Survey on Information Use (5/1/85)

1. Your department (or department in which you teach the most courses):

   Bus. 3; F.L. 4; Math 9; D.E. 2; H.E. 2; Health 3; S.S. 5; I.A. 4; S.C.I. 7; Eng. 6; S.E. 1; ? 2

2. Recent interviews with some Royal faculty members indicated a wide range of responses to the "At-A-Glance" forms. Which of the following best reflects what you did with the Students- and Class-At-A-Glance forms? (Please check only 1 answer for each form.)

	Students-At-A-Glance	Class-At-A-Glance
I never received the form	[4]	[4]
I received the form, but never looked at it	[1]	[1]
I glanced over the form, but then put it away	[20]	[18]
I used the form or took the information into account one way or another	[23]	[20]
None of the above	[1]	[1]

IF YOU USED EITHER FORM AT ALL, PLEASE ANSWER THE QUESTIONS ON BOTH SIDES OF THE NEXT (BLUE) PAGE.

IF YOU DID NOT USE EITHER FORM, PLEASE ANSWER THE REMAINING QUESTIONS ON BOTH SIDES OF THIS PAGE.

3. Which of the following best indicates your reasons for not using each form? (Please check only those that apply.)

	Students-At-A-Glance	Class-At-A-Glance
I have year-long classes and I already knew enough about the students	[6]	[6]
I got the forms too late in this semester	[2]	[2]
I didn't trust the validity of the student responses	[5]	[1]
The information was too old to be useful	[0]	[0]
I didn't understand the form	[1]	[1]
I felt the information might bias my judgment of students	[10]	[8]
Because teaching is an art, information of this sort is not useful	[1]	[0]
The form was a good idea, but it didn't have the right information	[0]	[0]
Other (Please explain in space below for each form)	[5]	[4]

OVER

4. Is there anything that could be changed that would make each form more useful to you?

Students-At-A-Glance: Yes [ ] No [ ]
Class-At-A-Glance: Yes [ ] No [ ]

IF YES TO EITHER FORM:

4a. What modifications would you recommend in terms of:

Students-At-A-Glance	Class-At-A-Glance

Deleting certain information?

Adding new information?

Modifying existing information?

Changing the report format?

5. Regardless of whether or not you would use these forms under any conditions, what (if any) potential abuses are you concerned about?

Students-At-A-Glance	Class-At-A-Glance

6. Other comments, concerns, or recommendations?

THANK YOU VERY MUCH FOR SHARING YOUR VIEWS WITH US

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3. How would you rate your frequency of use of each form? (Please circle the appropriate rating.)

	(7)	(6)	(12)	(4)	(2)
Students-At-A-Glance:	1	2	3	4	5
	Seldom				Frequently
Class-At-A-Glance:	1	2	3	4	5
	(9)	(9)	(9)	(2)	(0)

4. How would you rate the quality of use?

	(2)	(5)	(10)	(7)	(6)
Students-At-A-Glance:	1	2	3	4	5
	Low				High
Class-At-A-Glance:	1	2	3	4	5
	(6)	(5)	(12)	(4)	(3)

5. Which one of the following best describes your use of the forms?

[20] I focused mostly on the Students-At-A-Glance form.

[4] I focused mostly on the Class-At-A-Glance form.

[6] I focused on both forms about equally.

6. Which statement best describes when you made the most use of each form? (Choose one response for each form.)

	Students-At-A-Glance	Class-At-A-Glance
I used it mainly at the beginning of this semester	[17]	[18]
I used it mainly later on in this semester	[6]	[2]
I used it throughout this semester	[8]	[3]

7. Please check which of the pieces of information you have used from each report form. (Please check ALL that apply.)

Students-At-A-Glance

[9] Special education classification
[20] Educational expectation
[16] Absenteeism
[17] CTBS test scores
[23] GPA
[18] Academic self concept
[8] Homework
[8] Job
[9] Extra curricular activities
[12] Liking of school
[3] Bilingual codes

Class-At-A-Glance

[12] Instructional grouping preferences
[14] Liking of subject
[16] Activity preferences

8. Please briefly indicate how you have used each form:

Students-At-A-Glance	Class-At-A-Glance

OVER

9. What modifications would you recommend in terms of:

Students-At-A-Glance	Class-At-A-Glance

Deleting certain information?

Adding new information?

Modifying existing information?

Changing the report format?

10. What (if any) potential abuses are you concerned about with respect to the use of these forms?

Students-At-A-Glance	Class-At-A-Glance

11. Other comments, concerns, or recommendations?

THANK YOU VERY MUCH FOR SHARING YOUR VIEWS WITH US

APPENDIX D

APPENDIX D

(Revised, May 1985)

Royal High School Student Survey

The survey you are about to complete will ask you questions about yourself and about your school. This is not a test. There are no right or wrong answers. The survey will give you an opportunity to express how you feel about what happens in your classes and around school. That is why it is important to answer the questions as truthfully and as carefully as possible.

DO NOT WRITE ON THESE PAGES

MARK YOUR ANSWERS ON THE ANSWER SHEET PROVIDED. You will notice that answers go from A to E or from F to K. This does not matter. Simply choose the one answer that best fits your opinion for each question. MARK ONLY ONE LETTER ON THE ANSWER SHEET FOR EACH QUESTION. For example, if you chose answer B for question number 5, you would mark the answer sheet like this:

  A B C D E
5 ○ ○ ○ ○ ○

Or, if you chose answer J for question number 6, you would mark the answer sheet like this:

  F G H J K
6 ○ ○ ○ ○ ○

Remember, mark only one letter on the answer sheet for each question. If there are any words or questions you don't understand, please raise your hand and ask for help.

DO NOT BEGIN UNTIL YOU RECEIVE MORE INSTRUCTIONS

This question will be answered differently than the others. You will use the blue box at the top of the answer sheet. Read the list of Career Magnet Schools below.

1. Physical Science and Technology
2. International Relations & Political Science
3. Business
4. Industry
5. Performing, Visual and Fine Arts
6. Mental, Physical & Biological Sciences
7. Liberal Arts
8. Entry and Essentials
9. Don't Know

Now, using the last column of the blue box (to the far right), mark the number on the answer sheet that matches your career magnet school.

Starting with number 1 on the survey, the rest of the questions will be answered in the white area of the answer sheet. Remember, do not mark on the survey sheets themselves. Mark one answer for each question on the answer sheet.

(revised 5/85)

Questions About Yourself

1. Sex:
   A. Male
   B. Female

2. Besides English, what other languages are spoken in your home:
   F. None
   G. Spanish
   H. Vietnamese
   J. Chinese
   K. Other

3. Living situation:
   A. With two parents (includes stepparents)
   B. With one parent only (mother or father only)
   C. Guardian(s)/foster parents
   D. Alone or with friends
   E. Other

4. About how many hours a week do you usually spend working on a job during the school year?
   F. None. I am not employed during the school year.
   G. About 10 hours or less
   H. About 15 - 20 hours
   J. About 20 - 30 hours
   K. More than 30 hours

5. Mother's Education:
   A. Not a high school graduate
   B. High school graduate
   C. Some college
   J. College graduate
   K. Advanced degree

6. Father's Education:
   F. Not a high school graduate
   G. High school graduate
   H. Some college
   J. College graduate
   K. Advanced degree

7. How many hours do you watch television each day?
   A. None
   B. About 1 hour
   C. About 2 - 3 hours
   D. About 4 - 5 hours
   E. More than 5 hours

Choose the ONE answer that best completes each of the following sentences.

8. If I could do anything I want, I would like to:
   F. Quit school as soon as possible.
   G. Finish high school.
   H. Go to trade/technical school or junior college.
   J. Go to a 4-year college or university.
   K. Don't know.

DO NOT WRITE ON THIS PAGE

9. I think my parents would like me to:
   - A. Quit school as soon as possible.
   - B. Finish high school.
   - C. Go to trade/technical school or junior college.
   - D. Go to a 4-year college or university.
   - E. Don't know.

10. Actually, I will probably:
   - F. Quit school as soon as possible.
   - G. Finish high school.
   - H. Go to trade/technical school or junior college.
   - J. Go to a 4-year college or university.
   - K. Don't know.

11. In the future, when you leave Royal High School, what do you plan on doing?
   - A. Get a full-time job
   - B. Continue my education in college
   - C. Join the armed services
   - D. Other
   - E. Nothing

12. How comfortable do you feel about choosing a future career goal at this point in your life?
   - F. Very Uncomfortable
   - G. Uncomfortable
   - H. Neither Uncomfortable or Comfortable
   - J. Comfortable
   - K. Very Comfortable

The following sentences describe some of the ways in which people might think about themselves.

Read each of the following sentences carefully and mark the letter on the answer sheet that tells how much it is like you.

Look at the following practice sentence and mark the letter on the answer sheet that tells how much you agree or disagree with the sentence.

PRACTICE	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
I am good at art	A.	B.	C.	D.	E.

If you Choose "Strongly Agree," you're saying that you are very good at art. If you choose "Mildly Agree," you're saying that you are OK at art. If you choose "Mildly Disagree," you're saying that you are not too good at art. If you choose "Strongly Disagree," you're saying that you are very poor at art.

	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
13. I'm popular with kids my own age.	A.	B.	C.	D.	E.
14. Kids usually follow my ideas.	F.	G.	H.	J.	K.
15. Most people are better liked than I am.	A.	B.	C.	D	E.
16. It is hard for me to make friends.	F.	G.	H.	J.	K.
17. I have no real friends.	A.	B.	C.	D.	E.

(revised 5/65)

	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
18. I'm not doing as well as I'd like to in school.	F.	G.	H.	J.	K.
19. I am a good reader.	A.	B.	C.	D.	E.
20. I'm proud of my schoolwork.	F.	G.	H.	J.	K.
21. I'm good at math.	A.	B.	C.	D.	E.
22. I'm doing the best work that I can.	F.	G.	H.	J.	K.
23. I am able to do schoolwork at least as well as other students.	A.	B.	C.	D.	E.
24. My grades are not good enough.	F.	G.	H.	J.	K.
25. I'm always making mistakes in my schoolwork.	A.	B.	C.	D.	E.
26. I am a good writer.	F.	G.	H.	J.	K.

Questions About Your School Life

How much do the following words describe most of the teachers at this school?

	Very Much	Pretty Much	Somewhat	Only A Little Bit	Not at All
27. Friendly	A.	B.	C.	D.	E.
28. Helpful	F.	G.	H.	J.	K.
29. Have high hopes for us	A.	B.	C.	D.	E.
30. Talk to us	F.	G.	H.	J.	K.
31. Let us talk to them	A.	B.	C.	D.	E.
32. Care about us	F.	G.	H.	J.	K.
33. Do a good job	A.	B.	C.	D.	E.

How much do the following words describe how you feel about most of the students at this school?

	Very Much	Pretty Much	Somewhat	Only A Little Bit	Not at All
34. Friendly	F.	G.	H.	J.	K.
35. Helpful	A.	B.	C.	D.	E.
36. Smart	F.	G.	H.	J.	K.
37. Care about each other	A.	B.	C.	D.	E.
38. Competitive	F.	G.	H.	J.	K.

DO NOT WRITE ON THIS PAGE

Indicate whether or not you participate in the following activities at school. (Answer yes or no for each of the following).

	Yes	No
39. I participate in sports teams/drill team/flags/cheerleading.	A.	B.
40. I participate in student government/SIP site council/PTSA counsel.	F.	G.
41. I participate in music/band/drama/debate/other arts.	A.	B.
42. I participate in honor society/school clubs.	F.	G.

Below is a list of things which may be problems at this school. How much do you think each is a problem at this school?

	Not a Problem	Minor Problem	Major Problem
43. Student misbehavior (fighting, stealing, gangs, truancy, etc.)	A.	B.	C.
44. Poor courses or not enough different subjects offered	F.	G.	H.
45. Prejudice	A.	B.	C.
46. Drugs	F.	G.	H.
47. Alcohol	A.	B.	C.
48. Poor teachers or teaching	F.	G.	H.
49. School too large/classes overcrowded	A.	B.	C.
50. Teachers don't discipline students.	F.	G.	H.
51. Poor or not enough buildings, equipment, or materials	A.	B.	C.
52. The principal and other people in the office who run the school	F.	G.	H.
53. Poor student attitudes (poor school spirit, don't want to learn)	A.	B.	C.
54. Too many rules and regulations	F.	G.	H.
55. How the school is organized (class schedules, not enough time for lunch, passing periods, etc.)	A.	B.	C.

Issues and Problems:

Read each one of the following sentences carefully and choose the letter that tells how much you agree or disagree with what it says. CHOOSE ONLY ONE LETTER for each sentence. Please raise your hand if you have any questions.

	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
56. What I'm learning in school is useful for what I will need to know NOW.	F.	G.	H.	J.	K.

DO NOT WRITE ON THIS PAGE

	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
57. What I'm learning in school will be useful for what I will need to know LATER in life.	A.	B.	C.	D.	E.
58. There are places at this school where I don't go because I'm afraid of other students.	F.	G.	H.	J.	K.
59. I do not have enough time to do my school work.	A.	B.	C.	D.	E.
60. High school students should have job experience as part of their school program.	F.	G.	H.	J.	K.
61. Many students at this school don't care about learning.	A.	B.	C.	D.	E.
62. Average students don't get enough attention at this school.	F.	G.	H.	J.	K.
63. Some of the things teachers want me to learn are just too hard.	A.	B.	C.	D.	E.
64. Too many students are allowed to graduate from this school without learning very much.	F.	G.	H.	J.	K.
65. If I had my choice, I would go to a different school.	A.	B.	C.	D.	E.
66. There are things I want to learn about that this school doesn't teach.	F.	G.	H.	J.	K.
67. It's not safe to walk to and from school alone.	A.	B.	C.	D.	E.
68. I have trouble reading the books and other materials in my classes.	F.	G.	H.	J.	K.
69. The grades or marks I get help me to learn better.	A.	B.	C.	D.	E.
70. I like school.	F.	G.	H.	J.	K.
71. The grades or marks I get in class have nothing to do with what I really know.	A.	B.	C.	D.	E.
72. I have to learn things without knowing why.	F.	G.	H.	J.	K.
73. Parents should have a say in what is taught at this school.	A.	B.	C.	D.	E.
74. It is easy for me to get help from a counselor when planning my school program.	F.	G.	H.	J.	K.
75. We are not given enough freedom in choosing our classes.	A.	B.	C.	D.	E.
76. If I have a personal problem, it would be easy for me to get help from a counselor.	F.	G.	H.	J.	K.

DO NOT WRITE ON THIS PAGE

(revised 5/85)

	Strongly Agree	Mildly Agree	Not Sure	Mildly Disagree	Strongly Disagree
77. If you don't want to go to college, this school doesn't think you're very important.	A.	B.	C.	D.	E.
78. Students should have a say in what is taught at this school.	F.	G.	H.	J.	K.
79. If I need help planning for a career, it would be easy for me to get help from a counselor.	A.	B.	C.	D.	E.
80. Services in the Career Guidance Center (CGC) are useful to me.	F.	G.	H.	J.	K.

Questions About Teaching, Learning & Classroom Work

All schools teach pretty much the same things, but they may think some things are more important than others. . .

81. Which ONE of these does this school think is the most important thing for students? (Choose only one)
   - A. To work well with other people, become a better citizen, and so forth.
   - B. To learn the basic skills in reading, writing, arithmetic, and other subjects
   - C. To become a more self-confident, creative, self-disciplined and independent.
   - D. To be prepared for a job or career.

82. If you had to choose only the ONE most important thing for you, which would it be? (Choose only one)
   - F. To work well with other people, become a better citizen, and so forth.
   - G. To learn the basic skills in reading, writing, arithmetic, and other subjects
   - H. To become a more self-confident, creative, self-disciplined and independent.
   - J. To be prepared for a job or career.

In general, how do you like the following subjects?

	Like Very Much	Like Somewhat	Undecided	Dislike Somewhat	Dislike Very Much
83. English	A.	B.	C.	D.	E.
84. Mathematics	F.	G.	H.	J.	K.
85. Social studies (history, geography, government, etc.)	A.	B.	C.	D.	E.
86. Science	F.	G.	H.	J.	K.
87. Computer Education	A.	B.	C.	D.	E.
88. The Arts (art, crafts, music, drama, dance, creative writing, film-making, photography)	F.	G.	H.	J.	K.
89. Foreign Language	A.	B.	C.	D.	E.

DO NOT WRITE ON THIS PAGE

	Like Very Much	Like Somewhat	Undecided	Dislike Somewhat	Dislike Very Much
90. Vocational/Career Education (shop, business education, home economics, etc.)	F.	G.	H.	J.	K.
91. Physical Education	A.	B.	C.	D.	E.

92. How many hours of homework do you have each day?
    F. None
    G. About 1 hour
    H. About 2 - 3 hours
    J. About 4 - 5 hours
    K. More than 5 hours

93. In general, how often do you do your homework?
    A. All of the time
    B. Most of the time
    C. Sometimes
    D. Seldom
    E. Never

94. How often do your parents or other family members help you with your school work?
    F. All of the time
    G. Most of the time
    H. Only sometimes
    J. Seldom
    K. Never

Listed below are four ways students can work in a classroom. Choose the letter on the answer sheet that tells how much you like or would like to work in each way, even if you don't do so now.

	Like Very Much	Like Somewhat	Undecided	Dislike Somewhat	Dislike Very Much
95. Alone by myself	A.	B.	C.	D.	E.
96. With the whole class	F.	G.	H.	J.	K.
97. With a small group of students, who know as much as I do	A.	B.	C.	D.	E.
98. With a small group of students, some who know less, some who know as much, and some who know more than I do	F.	G.	H.	J.	K.

(revised 5/85)

Listed below are some things that you might do in a class. Choose the letter on the answer sheet that tells how much you like or would like to do each thing, even if you don't do it in class.

	Like Very Much	Like Somewhat	Undecided	Dislike Somewhat	Dislike Very Much
99. Listen to the teacher	A.	B.	C.	D.	E.
100. Do research and write reports,					
101. Write stories, poems or essays	F.	G.	H.	J.	K.
102. Listen to student reports	A.	B.	C.	D.	E.
103. Listen to speakers who come to class	F.	G.	H.	J.	K.
104. Have class discussions	A.	B.	C.	D.	E.
105. Build or draw things	F.	G.	H.	J.	K.
106. Do problems or write answers to questions	A.	B.	C.	D.	E.
107. Work with computers	F.	G.	H.	J.	K.
108. Give oral reports or speaches	A.	B.	C.	D.	E.
109. Watch TV, films or video tapes	F.	G.	H.	J.	K.
110. Take tests or quizzes	A.	B.	C.	D.	E.
111. Act things out	F.	G.	H.	J.	K.
112. Read for fun or interest	A.	B.	C.	D.	E.
113. Read for information	F.	G.	H.	J.	K.
114. Interview people	A.	B.	C.	D.	E.
115. Do projects or experiments that are already planned	F.	G.	H.	J.	K.
116. Do projects or experiments that I plan	A.	B.	C.	D.	E.

Questions About the Learning Resource Center (LRC)

117. Have you heard of the Learning Resource Center?
   F. yes
   G. no

DO NOT WRITE ON THIS PAGE

118. If yes, how often have you gone with your classes to the Learning Resource Center?
    - A. Never
    - B. Only once or twice
    - C. About once or twice a month
    - D. About once or twice a week
    - E. Almost every day

119. How often have you gone to the Learning Resource Center by yourself?
    - F. Never
    - G. Only once or twice
    - H. About once or twice a month
    - J. About once or twice a week
    - K. Almost every day

120. Do you think that most students know about the resources available in the Learning Resource Center?
    - A. Yes
    - B. No
    - C. Not sure

Questions About the Career Magnet School

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
121. I understand what the Career Magnet School program is trying to do.	F.	G.	H.	J.	K.
122. I have been helped by the Career Magnet School program.	A.	B.	C.	D.	E.

123. I have participated in one or more activities sponsored by my Career Magnet School.
    - F. Yes
    - G. No

STUDENTS AT A GLANCE

SECTION:
TEACHER:

PREPARED ON 10 OCT 84

STUDENT NUMBER	STUDENT NAME	GRADE	CM SCHOOL	ED EXPECT	DAYS ABS	CTBS READ	CTBS LANG	CTBS MATH	GPA	ACAD SC	HOMEWORK	JOB	ACTIVITY	LIKE SCH
0149043	ADAMS, WILLIAM B	12	.	4Y	.	.	.	.	1.1	H	+	F	3	+
0249052	ANDERSON, JOHN L	.	.	HS	.	.	.	.	.	M	+	F	0	+
0341950	ATWOOD, DANIEL R	12	6	HS	57	33	14	3	1.9	M	-	H	0	-
0449274	BAGLEY, LOIS J	12	3	4Y	35	52	84	83	2.6	M	0	H	2	+
0542468	BAKER, MARY M	12	3	2Y	17	34	54	3	1.8	H	+	N	2	+
0649341	BUTLER, JOYCE	12	3	2Y	18	49	67	0	2.7	H	+	N	0	+
0743686	CALDWELL, THOMAS C	12	4	2Y	11	80	88	80	1.6	M	0	H	0	0
0849048	CARTER, MATHEW	12	6	2Y	23	68	72	68	2.9	M	+	N	4	+
0942771	CLARK, LARRY P	12	6	HS	30	.	.	3	1.5	H	.	N	0	-
1049050	COOK, CHERYL	11	6	?	13	83	86	68	3.0	M	0	P	1	-
1143177	COOPER, JANE L	12	6	.	55	36	26	35	1.4	.	.	.	.	.
1244197	CURTIS, EDWARD N	12	6	4Y	27	19	7	7	2.1	M	+	F	3	+
1349286	DAVIS, LYNN	12	1	4Y	7	66	84	95	3.8	H	+	F	3	+
1449288	DUNCAN, JOHN	12	2	4Y	8	87	94	83	3.6	H	+	N	3	+
1541828	EATON, TIMOTHY	12	6	2Y	37	10	12	2	2.4	M	0	F	0	+
1649291	EMERSON, DOROTHY A	12	7	2Y	11	45	62	40	2.6	H	-	F	1	+
1749069	EVANS, ROBIN S	12	4	2Y	31	41	20	10	2.2	M	+	F	0	+
1849294	FARMER, DAVID R	12	4	HS	35	.	.	.	2.1	M	+	N	0	-
1949295	FELDMAN, ROBERT	12	1	2Y	10	63	64	64	1.7	M	-	P	1	0
2049301	FINK, AARON S	12	1	4Y	6	86	96	99	4.1	H	+	P	2	+
2149303	HARRIS, CURLEY M	12	6	2Y	35	62	40	83	2.4	M	+	P	2	+
2249306	HAYES, CYNTHIA	12	4	2Y	17	1	3	.	2.5	M	-	H	0	-
2349167	KAPLAN, HAROLD D	12	5	2Y	27	61	8	32	2.5	M	0	H	0	+
2448395	LEWIS, ANTHONY E	.	3	.	43	50	35	35	.	.	.	.	.	.
2549168	MARCUS, STANLEY	12	4	4Y	10	83	77	92	3.2	H	+	N	3	+
2649309	MC ARTHUR, EUGENE A	12	6	4Y	35	80	70	60	2.8	M	+	H	2	+
2749172	MILLER, ELIZABETH	12	3	2Y	46	23	30	28	1.6	M	+	N	0	0
2843336	MOORE, OSCAR J	12	2	2Y	32	78	50	3	2.9	M	+	N	0	-
2949129	PACE, DONALD W	12	2	2Y	30	16	28	45	1.6	M	-	N	1	-
3042520	RANDLE, ANN	12	6	4Y	47	.	.	.	2.1	M	+	F	0	0
3142793	ROBERTSON, SHEILA	12	6	4Y	30	99	74	43	2.5	M	+	F	0	+
3243660	ROSS, RICHARD E	12	5	HS	45	.	.	.	.8	M	-	F	.	0
3343179	SANDERS, JOAN N	12	8	.	118	8	0	37	1.1	.	.	.	.	.
3449323	SCOTT, MARION J	12	5	2Y	27	47	49	31	2.1	M	+	F	0	+
3549109	SILVERMAN, ARTHUR	12	4	HS	10	61	74	26	1.9	M	-	H	0	+
3641481	SNYDER, EVELYN G	12	5	4Y	15	42	17	23	1.3	H	+	N	3	-
3744147	STERN, BRUCE D	12	6	2Y	56	54	73	40	2.9	H	+	F	2	+
3849262	STUART, DONNA	12	1	2Y	31	92	52	95	3.1	H	+	F	0	-
3949329	THOMPSON, WENDY L	12	3	2Y	27	63	50	60	3.0	M	+	H	1	-
4043580	WALKER, VICKI S	12	4	2Y	25	12	12	23	2.2	M	-	P	1	-

. = MISSING

CM SCHOOL: CAREER MAGNET SCHOOL.
1=PHYSICAL SCIENCE AND TECHNOLOGY
2=INTERNATIONAL RELATIONS & POLITICAL SCIENCE
3=BUSINESS 4=INDUSTRY 5=PERFORMING VISUAL AND FINE ARTS
6=MENTAL, PHYSICAL & BIOLOGICAL SCIENCES 7=LIBERAL ARTS
8=ENTRY AND ESSENTIALS 9=DONT KNOW

ED EXPECT: EDUCATIONAL EXPECTATION.
QU=QUIT HIGH SCHOOL HS=FINISH HIGH SCHOOL
2Y=GO TO TRADE/TECHNIC SCHOOL OR JUNIOR COLLEGE
4Y=GO TO 4-YEAR UNIVERSITY ?=DONT KNOW

DAYS ABS: NUMBER OF FULL DAYS ABSENT.

CTBS TEST RESULTS ARE REPORTED IN PERCENTILE RANK.

ACAD SC: ACADEMIC SELF CONCEPT. H=HIGH M=MEDIUM L=LOW

HOMEWORK: +=ALL/MOST OF THE TIME 0=SOMETIME -=SELDOM/NEVER

JOB: F=FULLTIME(30+) H=HALFTIME(20-30) P=PARTTIME(10-20) N=NONE

ACTIVITY: NUMBER OF EXTRACURRICULAR ACTIVITIES(1-5).

LIKE SCH: LIKE OF SCHOOL. +=LIKE 0=NOT SURE -=DISLIKE